

Growth Trends

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GROWTH TRENDS

Prepared for the Comprehensive
General Plan Review Program

Third Edition:
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I. INTRODUCTION TO THE THIRD EDITION

The Comprehensive General Plan Review Program

In November, 1984, the Contra Costa County Board of Supervisors authorized the Community Development Department to initiate a review and update of the County's General Plan documents. The last comprehensive countywide General Plan update was completed in 1963. Over the last two decades, the County's General Plan has evolved through the preparation of State-mandated plan elements, and through the adoption of individual area plans which have set policy in developing unincorporated areas such as East County, the San Ramon Valley and Rodeo. Scores of General Plan amendments affecting smaller areas were also adopted. During this same period constitutional changes in the relationship between local, state, and the federal government have had profound impacts upon local land use policies and the financing of public services. In recent years it has also become increasingly important to consider land use policy in the context of public and transportation facilities planning because of their interdependency.

Since adoption of the last comprehensive General Plan, California and the Bay Area have experienced a dynamic rate of growth and change. Contra Costa County has grown from a traditional "bedroom" suburban setting toward a more balanced environment of employment and housing opportunities. The County population is anticipated to reach 845,000 persons by the year 2000, while over 100,000 new jobs may be created by that date. Much of the future growth will occur within the corporate limits of the County's eighteen cities, while the County government will increasingly play a coordination and leadership role.

The proposed Comprehensive General Plan Review program will provide a mechanism to consolidate and update Contra Costa's individual General Plan elements into one document suitable for dissemination to the public, as well as to review the policies of individual cities in a countywide context. The program was created as a means of bringing jurisdictions and the public together in a 65 member citizens' Planning Congress to discuss the County's established growth policies, review their impacts and work toward a consensus regarding the County's direction in the short and intermediate time frame.

The Planning Congress, a 65-member citizens advisory committee composed of representatives from all 18 cities in the County, business, labor, environmental, agricultural and community organizations, has been appointed by the Board of Supervisors to oversee the program. The committee began meeting on a regular basis in August, 1986, and is expected to continue its work until a draft revised General Plan is prepared for public hearings in late 1988.

A key component of the updated Countywide General Plan will be a Growth Management program. At the time of this writing (mid-1988), the Planning Congress has adopted a draft Growth Management program which sets performance standards that new development must meet. These performance standards include requirements involving sewer and water service, parks and recreation, minimum levels of service for traffic on nearby roadways, minimum per capita staffing for police and fire service, and other requirements. The draft Growth Management program has been designed as a multi-jurisdictional process where the 18 city jurisdictions, the County, LAFCO, and all of the service providers are involved in a coordinated effort to determine where growth should occur in order to minimize infrastructure costs. Under this joint decision-making process, the

County will negotiate agreements with the cities to prevent development from occurring within each of the cities' Sphere of Influence areas unless specific conditions have been met.

The technical work for the General Plan revision process began in 1985. Since then, numerous background studies have been prepared (including this book), issues have been identified and analyzed, and a team of professional planning consultants have been hired to assist staff. Among the accomplishments to date are the preparation by staff and consultants of a detailed countywide data base composed of housing employment and other demographic information. This information has been carefully reviewed by the cities and other agencies for accuracy. The data base will be a main input to the computerized transportation model, which in turn is being used to analyze the various land use scenarios that the Planning Congress and staff are studying. The data base will also be used in the Growth Management program; it will allow the County to analyze current infrastructure and service needs and accurately project costs associated with future development.

Purpose and Use of this Report

This report was originally prepared by the Community Development Department as the first in a series of background reports for the Comprehensive General Plan Review program. **Growth Trends 1985** was published in November, 1985. Because of the tremendous public interest in the report (400 copies of the book were distributed in the first nine months after publication), second and third editions updating some of the previous information have been prepared. Hopefully, **Growth Trends** will continue to be updated on an annual basis.

The second background report prepared for the General Plan Review program, **Summary of Agency Plans and Programs** (May, 1986), analyzes the adopted plans, programs, and responsibilities of various regional, state, and federal agencies, and utility and transit districts which affect development in Contra Costa County. The third background report, **Summary of City and County General Plans** (November, 1986), summarizes the existing General Plans of all 18 cities in Contra Costa County and analyzes recent development activity and trends. The report examines the consistency or inconsistency of the city general plans as contrasted with the land use designations and policies contained in the County's existing General Plan. Copies of the report **Summary of Agency Plans and Programs** may be obtained at the Community Development Department office in Martinez. Unfortunately, the other report, **Summary of City and County General Plans**, is out of print and has not yet been updated.

As part of the process of reviewing and updating land use, infrastructure and other development goals for the County, it is necessary to study recent trends and understand what kind and how much change has occurred in Contra Costa over the last several decades. This report, **Growth Trends**, presents the hard data necessary to analyze what has happened in the County in recent years, in terms of population, residential, agricultural, commercial and job growth, and what to expect in the future. The document before you is filled with lots of numbers and statistics. The intent is to provide the reader with much of the raw data he or she will need to form educated opinions about the planning decisions that must be made to guide the County's growth through the 1990's and into the next century. Put simply, if we are to come to agreement about what the future environment of Contra Costa County should look like, we must study the recent past and understand how we have arrived at where we are today.

Although this report necessarily includes many tables and charts, the accompanying text attempts to put all the numbers into a countywide, and sometimes regional perspective. The text pinpoints the most important recent development trends and also discusses projections of future population, household and job growth. This document is primarily intended for use by citizens directly involved in the Comprehensive General Plan Review program, although it is hoped that the information contained here can be utilized by a wide range of students, professionals, business people, community activists, and other residents who are interested in or concerned about development issues in Contra Costa County.

Sub-Areas of the County Defined

Contra Costa County is a very large County, covering over 470,000 acres and 800 square miles. It stretches from the built-up, urban shoreline along the San Francisco Bay to the agricultural lands of the San Joaquin-Sacramento River Delta fifty miles away. While many people think of Contra Costa County as predominantly an enclave of upper middle class suburban bedroom communities, the County's population and built environment varies quite a bit from one area to another.

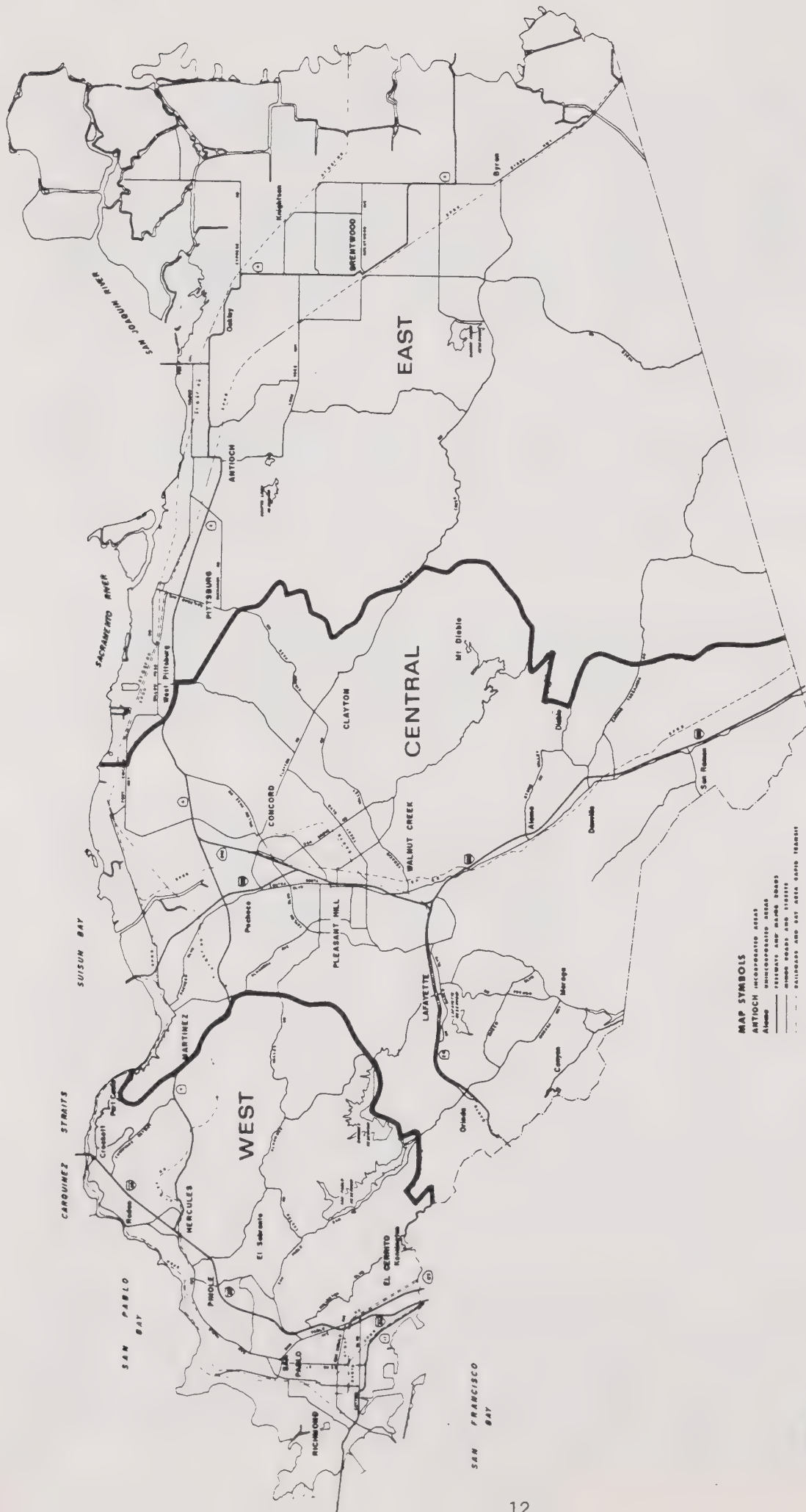
To facilitate a meaningful discussion and analysis of Contra Costa County's demographic and economic characteristics, this report uses the common distinction made by residents to differentiate between the three geographic sub-areas of the County. The three sub-areas of Contra Costa (West, Central, and East County) are illustrated in Figure I-1. In turn, the largest sub-area, Central County, has been further subdivided for purposes of clarification into two smaller sections: North Central County and the San Ramon Valley.

Throughout this report **West County** refers to the area along the shoreline of the San Francisco and San Pablo Bays which is separated from the rest of the County by the East Bay Hills. West County was the first part of the County to develop with medium density suburbs and industry. The western sub-area includes the cities of El Cerrito, Richmond, San Pablo, Pinole, and Hercules, as well as the unincorporated areas of El Sobrante, Rodeo, Crockett, and Port Costa.

The **Central County** sub-area is the largest, taking in ten of the eighteen cities in Contra Costa and over half of the total population. Central County is composed of all the low density bedroom communities that have developed in the flat valleys between the East Bay Hills and the Diablo Range to the east extending north and south of Mt. Diablo. Central County includes the Lamorinda area (the cities of Lafayette, Moraga, and Orinda, as well as the unincorporated areas of Canyon and the Briones Hills); the communities in the Diablo and Clayton Valleys (Walnut Creek, Concord Clayton, Pleasant Hill, and Martinez); and the rapidly growing San Ramon Valley (Alamo, Danville, San Ramon, and the Blackhawk area). In some chapters of this book, we may also refer to **North Central County**, which takes in all of the cities and unincorporated areas along the northern I-680 corridor between Walnut Creek and Martinez, as well as Lamorinda.

East County communities include the cities of Pittsburg, Antioch, and Brentwood, and the unincorporated areas of Port Chicago, West Pittsburg, Oakley, Bethel Island, Byron, and Discovery Bay. The eastern portion of the County encompasses the southern shoreline of the Suisun Bay and Sacramento River, most of the California Delta islands, and the prime agricultural lands centered around Brentwood. East County also includes much of the hilly terrain of the Diablo Range and the Tassajara area along the Alameda County border, which makes it the largest portion of the County in terms of land area.

Figure I-1



CONTRA COSTA COUNTY
CALIFORNIA



II. AN OVERVIEW OF THE COUNTY: A SUMMARY OF THE MOST IMPORTANT FINDINGS

This chapter summarizes the most important findings of this report regarding trends in Contra Costa County's population and economic growth, as well as changes in household characteristics and the County's employment patterns. A summary of future projections in these areas, based upon the most recently published forecasts by regional or state planning agencies, is also included.

Population Growth

- o From a rural agricultural county containing less than 20,000 residents at the turn of the century, Contra Costa experienced its most rapid population growth to date during the World War II years, when war industries in Richmond attracted tens of thousands of workers. The County gained 200,000 new residents during the 1940's, a tripling in population.
- o Suburban growth in the central portion of the County began in earnest during the 1950's. While Walnut Creek and Concord had less than 2,000 residents between them at the onset of World War II, by 1960 the two cities had a combined population of over 46,000.
- o During the 1960's and 1970's, the rapid suburbanization of Central County continued, with 70% to 75% of the total population growth in Contra Costa County located in that sub-area.
- o Over 100,000 new residents moved into Contra Costa County during the 1970's, which equaled an 18% growth rate, compared to 12 percent growth in the region and an 18.5% rate for the entire state.
- o Although the rate of population increase during the 1970's was very high in the growing East County area, it has not been until the most recent decade that the absolute amount of new residents has begun to rival growth in the Central County cities.
- o The portion of the County population that lives in unincorporated areas has declined steadily as cities have annexed land into their jurisdictions and new cities have been incorporated. The population in the unincorporated County has fallen from roughly one-half of the total population in 1960 to less than one fifth (19%) in 1988.
- o Contrary to some common perceptions, Contra Costa County has not been one of the fastest growing areas in California during the most recent period of 1980 through January, 1988. The County has grown by 97,200 persons since 1980, a 14.8% increase, compared to an overall growth rate in the nine county San Francisco Bay Area of 11.8%. However, during the same period, the entire State grew at a rate of 18.4%, led by phenomenally rapid population growth in Southern California.

- o Population increases in five Southern California counties between 1980 and January, 1988 amounted to almost 4.4 million new residents, or more than half (59%) of the population growth in the whole state. Some of the fastest growing urban counties in California are Riverside (a 43% increase between 1980 and 1988); San Bernardino (a 39% increase); San Diego (25%); and Sacramento (23%). In contrast, the fastest growing counties in the San Francisco Bay Area are Solano (a 29% increase in population) and Sonoma (20%).
- o While Contra Costa's recent growth rate has been somewhat higher than the regional average, it's interesting to note that in the West Bay, Alameda County has added 40% more residents between 1980 and 1988 (136,200) than Contra Costa (92,200).
- o During the last year (January 1, 1987 through January 1, 1988), the population increase in California has been one of the largest one year gains since World War II. Six of every ten new residents, or over 400,000 people, settled in the greater Los Angeles-Orange-San Diego metropolitan area.
- o During 1987, population growth in the nine county Bay Area amounted to 88,300 additional residents. During the last year, Southern California has been growing at a rate of 2.6%, while the Bay Area is growing at a slower rate of 1.5% annually. The fastest growing region in the State is the Mother Lode country, the resort/retirement communities in the Sierra foothills, which is experiencing a population increase of over 5% annually.
- o During the last year Contra Costa County has surpassed San Francisco as the third largest county in the Bay region, and it has become the ninth largest county in the State.
- o The racial composition of Contra Costa County is predominantly white (82 percent). West County has the highest proportion of blacks (26 percent of the population in that sub-area) and Asians (8 percent). The largest Spanish origin population is in East County (17 percent of that area). In contrast, Central County is 93 percent white.
- o One of the most striking changes in the demography of California and the nation during the 1970's was a decrease in the size of an average household. Between 1970 and 1980, the average household size in the nine-county San Francisco Bay Area decreased from 2.9 persons to 2.57, while the average in Contra Costa plummeted from almost 3.2 persons per household to less than 2.7 ten years later.
- o The major factors contributing to the decline in household size in the 1970's were the large number of "baby boomers" who entered the labor force and set up their own households, the increasing number of female-headed households, and the historically low birth rates among women of child-bearing age.
- o After the steep declines in household size during the 1970's, recent estimates indicate that the shrinking average has stabilized or even reversed itself in some areas of the state. Although the size of the average household in the San Francisco Bay Area has remained fairly constant between 1980 and 1988, statewide the ratio has increased from 2.68 to 2.72 persons.

- o The primary cause of this reversal in the average household size in many counties is the growth of minority families, which tend to have more persons per household. Much of this growth is due to significant immigration into California communities of Southeast Asian and other foreign groups with very large families. A secondary reason behind the stable or increasing household sizes may be the baby "boomlet" that has occurred during the mid-1980's.
- o In Contra Costa County, however, the average household size has continued to shrink since 1980, dropping from 2.69 persons to 2.59 in 1988.
- o Dramatic changes are beginning to appear in the age structure of Contra Costa County's population, mirroring state and national trends. The County's elderly residents (over 65 years old) have increased sharply from 7 percent of the population in 1970 to almost 11 percent in 1985. Accompanied by the overall "graying" of the population, the increase in the number of children in Contra Costa has lagged far behind general population growth. Children under 15 years old made up almost 30 percent of the County's population in 1970, but are now only 21 percent of the total. By the year 2000, the number of children is projected to increase by only 20,000, while the elderly population will grow by about 28,000. These demographic changes will have a significant impact upon the type of housing required for future generations, and will raise questions regarding the social costs of health care delivery.
- o Population projections prepared by the Association of Bay Area Governments (ABAG) indicate that the region is expected to grow by over one million people between 1985 and 2005. The largest absolute increases in population will occur in Santa Clara, Alameda, and Contra Costa Counties, although the fastest growing counties will be Solano and Sonoma.
- o Contra Costa County is expected to grow from 706,500 persons in 1985 to 888,600 residents in 2005. The greatest amount of population growth is expected to occur in the eastern communities of Antioch, Oakley, and Brentwood. Brentwood is projected to be one of the fastest growing areas in the San Francisco Bay region. Coupled with future growth in Pittsburg, East County is anticipated to add approximately 100,000 new residents by the year 2005. Central County will grow by 58,000 people, according to ABAG projections, with over one half of the increase occurring in the San Ramon Valley. In West County the only areas which are expected to grow significantly are Richmond and Hercules.

Residential Construction

- o The number of housing units in Contra Costa County has grown from approximately 91,000 in 1950 to almost 300,000 in 1988. Forty thousand new homes were constructed in Central County during the 1960's, with two thirds of the growth taking place in Concord, Walnut Creek, and the Lamorinda (Lafayette-Moraga-Orinda) area. In contrast, 10,000 housing units were built in West County and 4,000 were added in East County between 1960 and 1970.

- o During the first half of the 1970's, the rate of residential construction slowed dramatically in West County, but remained very strong elsewhere. The cities of Antioch and Pittsburg registered 30 percent increases in their housing stock during this five year period, as did Concord, Walnut Creek, and Pleasant Hill. Over 6,600 new homes were completed in East County; 8,000 homes in Concord; and 5,500 new housing units each in Walnut Creek and the San Ramon Valley.
- o Residential construction in the County continued to boom during the latter half of the 1970's, until high interest rates began to slow new housing starts in 1979-1980. Over 30,000 new housing units were completed between 1975 and 1980, compared to 36,600 during the previous five years. In contrast, between 1980 and 1988, approximately 46,800 housing units have been built in the County.
- o Housing construction nosedived during the early 1980's, primarily due to high interest rates. By the end of 1984, the local home building industry had recovered, completing 5,100 new units. During 1985, almost 6,300 homes and apartments were built. In 1986, 7,800 units were constructed, an increase of 24% over the previous year. During the most recent year (1987), 11,100 units were finished, representing a very strong 42% increase over the previous twelve month period.
- o Construction activity has been very strong in North Central Contra Costa County throughout the 1980's. Approximately 15,500 housing units have been built since 1980 in North Central County (along the northern I-680 corridor between Martinez and Walnut Creek), compared to 14,300 units completed in East County, 9,200 units in West County, and 7,900 units in the San Ramon Valley. However, the San Ramon Valley and East County have been the fastest growing areas since 1980, with increases in housing of 36% and 28%, respectively.
- o The greatest amount of new housing growth between 1980 and the end of 1987 occurred in the cities of Antioch (5,000 new units), Concord (4,100 units), Richmond (3,600), Pittsburg (3,600), San Ramon (3,500), Martinez (3,100), and Pleasant Hill (2,600). Other communities that have experienced significant growth during the 1980's have been the unincorporated areas of North Central County (2,200 new homes or apartments built), Hercules (2,200 units), Walnut Creek (2,200 units), unincorporated Oakley (2,100), Danville (1,800), and the unincorporated communities of West Pittsburg (1,600) and Blackhawk (1,500).
- o In 1980, three quarters of the new housing built in the County was traditional single family homes, with the remainder being condominiums, townhouses, or apartments. During 1986 however, for the first time, less than one half (42%) of the housing completed in the County was detached single family homes, while over one third (38%) were apartments. Construction during 1987 also emphasized rental apartments, with 39% of all new units falling in that category, followed by single family detached homes (35% of the total) and condominiums or townhouses (27%).
- o As unincorporated land has been covered and new cities have incorporated, the County's role in approving and building new housing has shrunk dramatically. In 1980, approximately 43% of all housing completions occurred under County jurisdiction. By the end of 1987, however, the proportion of development approved in unincorporated areas had plummeted to under one quarter (24%).

- o During the year ending in December, 1987, almost 11,100 housing units were completed in Contra Costa County. Over one half of the new housing units were built in the historic growth areas of North Central County (Concord, Walnut Creek, Pleasant Hill, Martinez), or in East County (Pittsburg, Antioch, Oakley, Discovery Bay). Housing growth during 1987 in the San Ramon Valley was approximately 2,000 units, trailing completions in the West County area (2,800 units), North Central County (2,900 units), and East County (3,400 units).
- o In recent years, the City of Antioch has been by far the most active location for new home construction in Contra Costa County. The City registered an incredible 1,100 to 1,200 units completed during both 1986 and 1987, or a building pace of 100 new homes each month. However, during the last year (1987), Antioch's homebuilding was eclipsed by the City of Richmond, which completed over 1,400 units (primarily condominiums near Hilltop shopping mall), and by the City of San Ramon (over 1,200 units built during 1987, located primarily in the large Canyon Lakes development).
- o Over the last decade, the types and densities of major subdivisions that have been approved in the unincorporated areas of Contra Costa County have undergone some distinct changes. In general, the overall average density of subdivisions approved in the County have shown an upward trend, from 1.6 housing units per acre in 1980 to 3.6 units per acre for the first five months of 1987. This trend is difficult to measure, however, since more and more subdivision applications involve land in hilly areas of the County with large amounts of open space, where actual developed densities are quite low compared to subdivisions on flat lands in the valley.
- o Almost three quarters of the housing stock in Contra Costa consists of single homes, with very little variation between the three sub-areas of the County. Twenty five percent of the housing in West and Central County is multiple family units, while only 19% of the housing is apartments in East County; only 2% of the housing in the County is mobile homes. Age of housing stock varies considerably, however, with 62 percent of the units in West County having been built before 1960, compared to one third of the units in Central County. Two thirds of all housing in the County is owner-occupied, with one third occupied by renters.
- o Projections by ABAG indicate that 101,000 households (occupied housing units) will be created in Contra Costa County over the next twenty years. Almost one half of this projected housing growth (43,000 households) will be in East County, which amounts to a doubling in the existing housing stock between 1985 and 2005. The growth rate in East County is expected to be more than twice that of the other two sub-areas.
- o Countywide, ABAG projects that the rate of household growth will be greater than population growth during the 20 year period. This demographic trend is caused by a decreasing average household size in Contra Costa, which will require the production of additional housing units in excess of that required by the rate of population growth.
- o Between 1990 and 2000, approximately 10,000 new households are expected to be created in West Contra Costa, in North Central County, and in the San Ramon Valley. East County households should increase by 25,500 during the same period.

- o The specific areas of Contra Costa County that are projected to grow the most between 1985 and 2005 are the Antioch area (18,000 new households or about 18,360 additional housing units); rural East Contra Costa, including Oakley, Byron and Discovery Bay (8,300 new households); Brentwood (8,200 households); the San Ramon area (12,900 households); Danville (4,800 households); and Richmond, including El Sobrante (11,400 households)
- o ABAG projections imply the need for approximately 29,000 new housing units to be built in Contra Costa County during 1990-1995, 28,000 new houses between 1995-2000, and 12,500 units between 2000-2005. The projected housing demand translates into the need for about 5,000 new dwelling units added to the County's housing stock each year.
- o An "affordability gap" between the average price of a home and the median family income needed to qualify for a loan exists in Contra Costa County, as elsewhere in the region and State. The costs of housing varies widely, with homes priced in the range of \$95,000 to \$115,000 in East County and average home prices in the \$300,000 to \$500,000+ range in affluent areas of Central County. The price of an average home or condominium in East and Central County in early 1988 was about \$200,200, which requires an income of about \$60,000 annually (or \$5,000 per month) to qualify for a loan.

Agriculture

- o The dominant trend in the County's agricultural base over the last several decades has been a significant decrease in the amount of acreage in production. Much of this decline is attributable to the increasing urbanization of the region. Agricultural land countywide has declined by almost one half since 1940, from over 400,000 acres (or 85% of the County's area) to less than 210,000 acres in 1987 (45% of County lands).
- o About 85% of all agricultural land in the County is range and pasture acreage, predominantly hilly and non-irrigated land supporting grazing of livestock and dry farming of grains for animal feed. The number of beef and dairy cattle in the County, however has decreased from 43,000 head in 1960 to 23,000 in 1984 to about 17,000 head in 1986. Federal legislation, changing consumer habits, and foreign competition had a particularly disastrous impact upon local cattle ranchers in Contra Costa during the mid-1980's, but the cattle industry rebounded in 1987, with a 67% increase in gross receipts over 1986. Milk production in the County is still a significant activity, with a handful of large dairies.
- o The harvesting of field crops such as hay, barley, and wheat has plummeted in acreage by 78 percent since 1940, although most of this decline occurred prior to 1970 and the amount of land producing these crops has remained relatively stable in recent years.
- o Vegetable croplands have decreased in acreage by over one half in the last 25 years. The cultivation of asparagus has dropped significantly, and lettuce growing has virtually disappeared. The most significant vegetable crop which is still being harvested and processed is tomatoes in East County.

- o Farmlands supporting fruit and nut trees have decreased significantly as subdivisions overran orchards in Central County and new tree crops were replanted in East County. The most widespread crops, in terms of harvested acreage, continue to be walnuts and almonds, which account for 4,000 acres in the County. However, producing walnut orchards have declined by 50% during the 1980's as orchards in East County have gone out of business or been converted to urban uses.
- o Some of the fastest growing agricultural products are greenhouse plants and shrubs, primarily grown for the County's suburban population. The floor area of greenhouses which grow nursing plants, primarily located in North Richmond, has grown to about 3.5 million square feet with an additional 250 acres in planted nurseries. The sale of bedding plants has more than doubled during the 1980's.
- o In 1987, agriculture in Contra Costa County brought in almost \$61 million in gross receipts, not taking into account the costs of production, transportation, or marketing. Specialized nursery crops, as a group, are by far the biggest money-makers in the County, amounting to \$20 million in 1987, or one third of total gross receipts. The most significant individual crops are bedding plants sold by greenhouse operations (\$9.7 million); tomatoes (\$9.0 million); the sale of beef cattle (\$5.0 million); roses (\$5.0 million); dairy milk (\$4.2 million); and asparagus (\$3.2 million). Grouped together, the sale of all vegetables amounted to \$14.7 million, fruits and nuts amounted to \$7.1 million, livestock products brought in \$11.3 million, and field and pasture crops sold \$7.8 million.
- o The number of very small farms (less than 10 acres) in the County has risen to about 40% of the total over the last decade, primarily as the result of "ranchette" development. The relative number of very large farming operations (over 500 acres) has remained the same, with about 90 farms of that size in the County. Farms are typically under family ownership, with only about 50 farms countywide owned by corporations.
- o Class I prime agricultural lands, the very best soil for all types of cultivation, have largely disappeared under cities in the western and central portions of the County. The remaining area of Class I soil in Contra Costa includes several hundred acres centered around Brentwood. Much of the Class I acreage in East County is still under agricultural production, though significant development pressure exists in the area.
- o Many acres of Class II agricultural lands, also considered "prime," are located in East County and can still be saved for commercial farming. Most Class III soils in the County, although not labeled "prime," are located in the Sacramento-San Joaquin Delta and are very good for farming with proper drainage.
- o The subdivision of agricultural lands for "ranchette" type residential development or other urban uses poses a significant threat to agriculture. Regulating ranchette and farm family member housing development to slow the conversion of agricultural lands is a difficult yet critical issue that hopefully will be resolved through the County's ongoing General Plan Review program.

Jobs and the Changing Economy of the County

- o The decade of the 1960's was the watershed period for traditional blue collar manufacturing in Contra Costa County. Manufacturing positions in the County's petroleum, paper, chemical and other industries provided one third (29,000 jobs) of the employment base in 1960. Ten years later, manufacturing represented only one job out of every five, while the greatest employment gains during the 1960's were registered in the service industry (12,000 new jobs), in retail and wholesale trade (13,000 jobs) and government (11,000 jobs).
- o Throughout the 1970's the economy of Contra Costa grew at a steady pace, with three quarters of the 42,000 new jobs created occurring in services (led by explosive growth in health and business services), retail/wholesale trade, and the white collar FIRE (finance, insurance, real estate) sector.
- o Between 1972 and 1980, manufacturing employment in the County increased by 8%, or 2,100 jobs, although it's relative importance slipped from one job out of every six (18% of the local workforce) to one job of every eight (14%). Basic manufacturing activities which suffered extensive losses in their work force during the 1970's included paper mills, which lost 1,300 jobs over the period, food processing (600 jobs), and the manufacture of non-electrical machinery (600 jobs). Employment in other heavy industries made substantial gains, including the printing and publishing sector (800 workers), chemical refineries (400 workers), and oil refineries (300 jobs). By far the largest increase in manufacturing during the 1970's came in "high technology" production. Several large electronic instruments manufacturers hired 1,800 workers and other electronic component firms added 500 jobs between 1972 and 1980.
- o Since 1980, employment in Contra Costa County has grown by 62,900 jobs, with major gains registered in the professional "white collar" categories, as a result of the boom in office construction along the I-680 corridor. The FIRE sector more than doubled between December, 1980 and December, 1987, adding 13,500 jobs (largely because of the Bank of America relocation to Concord). Over 9,000 jobs were added in the transportation-communications-utilities (TCU) category, again largely due to a corporate relocation (Pacific Bell).
- o Recent office and residential construction has pushed up employment in the construction industry to 20,000 jobs. Restaurants, bars, and other food service outlets added 4,500 jobs over the last seven years, and the health services field gained 4,400 positions in the County.
- o The California Employment Development Department (EDD) estimates that Contra Costa County jobs grew at a very fast rate (3.9%) during 1987, but that job growth will slow to more normal rates of 2% to 2.5% annually during 1988 and 1989. While over 10,000 jobs were created in (or transferred into) the County between December, 1986 and December, 1987, approximately 6,800 jobs are expected to be added during 1988 and about 5,300 jobs in 1989.
- o County manufacturing has continued to grow during the early and mid-1980's, with job losses in some older basic industries more than offset by gains in chemical and petroleum refining, printing and publishing activities and, to a lesser extent, the "high technology" sectors of electronic components and

instruments. Between December 1980 and 1985, oil refineries in Contra Costa added some 2,200 jobs.

- o Manufacturing jobs have declined significantly during the last two years, however, with 1,700 jobs lost, primarily because of cutbacks in some oil refineries (500 jobs) and because of a continuing decline of heavy industries such as lumber and paper products, and primary and fabricated metals.
- o Besides serving as an important source of well paying blue collar jobs, heavy industry pays by far the largest amount of property taxes to the County, with Chevron the highest taxpayer in 1987-88 (\$23.0 million), followed by PG&E (\$16.6 million), Pacific Bell (\$10.5 million), Shell Oil (\$6.5 million), Union Oil (\$5.0 million), Tosco Oil (\$4.4 million), and Dow Chemical (\$2.5 million).
- o Employment in the "high technology" industries has fluctuated since 1980. High tech firms now employ approximately 3,400 workers in Contra Costa County, or 11 percent of all manufacturing jobs. High tech jobs in the County are predominantly involved in the production of computerized instruments and test equipment.
- o The California Employment Development Department forecasts that approximately 12,100 jobs will be created in Contra Costa County between December, 1987 and December, 1989. Two thirds of the new jobs will be in services and retail trade. The largest jump in workers (5,500 full and part-time positions) will be in the broad services sector, which by the end of 1987 had displaced retail trade as the biggest industrial category in the County. Business services and health services are both expected to add 1,500 positions over the 1987-1989 period, with the most dramatic increases occurring with the temporary help agencies that supply office and clerical workers. Restaurants and bars will account for 1,100 of the 3,500 new jobs generated by retail trade. The FIRE sector (finance, insurance, real estate office jobs) is expected to grow by almost 1,300 workers between December, 1987 and the end of 1989.
- o The largest employers in Contra Costa County are Chevron U.S.A. (approximately 10,500 employees); Pacific Bell (7,500); Contra Cost County (6,000); Bank of America (4,700); the Mt. Diablo School District (4,300); Pacific Gas & Electric (2,000); and Leshar Communications (1,800 workers).
- o In 1982, wholesale trade in Contra Costa County registered \$4.5 billion in gross sales, while retail trade grossed \$3.5 million. Although countywide retail sales showed little relative increase compared to consumer buying power (inflation) during the period 1977-1982, individual retail shopping malls showed impressive growth, largely at the expense of the traditional downtown shopping districts in the County's cities. The growth in retail sales was strongest at the Hilltop Mall shopping complex in Richmond (a 142 percent increase in five years), followed by Martinez (reflecting new commercial construction), the Willows Shopping Center in Concord, and the County East Mall in Antioch. However, the largest retail concentration in the County in terms of total sales continues to be the downtown Walnut Creek shopping area.
- o Taxable retail sales in Contra Costa County rose to over \$1.0 billion during the third quarter of 1986, with the biggest change in recent sales coming in the automotive sales category.

- o During the 1970's, 40,000 men and almost 60,000 women in Contra Costa County entered the labor force, a phenomenon caused in part by the need for many households to rely on two incomes to meet rising housing costs. Only 71,000 new job positions were created during the same period, resulting in many residents commuting out of the County.
- o Since 1980, over 97,000 new residents have moved into Contra Costa County, while approximately 62,200 new workers have joined the labor force. For the first time during the last two decades, the number of new employment opportunities created in the County (66,000 jobs) exceeded the number of new residents who became a part of the local workforce.
- o Corresponding with the upper middle class socio-economic characteristics of the County as a whole, a high percentage of the labor force is employed in well-paying managerial and professional jobs. In 1980, eight out of every ten workers who lived in Central County were employed in "white collar" jobs (professional, technical, sales, service or clerical positions). Conversely, in East County one third of the labor force was employed in the "operatives" occupational category, which includes many "blue collar" jobs.
- o According to the results of the 1980 U.S. Census, almost 25,000 Contra Costa residents commuted from West County into Alameda County or elsewhere in the region, while a slightly larger number (26,500) of West County residents commuted to local jobs. A singularly high portion of the employed residents in the Lamorinda-Walnut Creek area (about half), commuted long distances to jobs outside the County, primarily to San Francisco and Berkeley-Oakland. In the Concord-Martinez area, only 25% of the local residents commuted to job centers in San Francisco or Alameda Counties. In 1980, only 20% of East County residents commuted to jobs out of Contra Costa.
- o In 1980, the greatest amount of in-commuting into Contra Costa was over the Carquinez Bridge (I-80), although two thirds of these workers were continuing on through the County to other parts of the region.
- o Between 1983 and 1986, average daily traffic volume on key freeways in Contra Costa increased by 17% to 18%, for an annual growth rate of an incredible 6%, compared to a normal yearly increase of 2%.
- o During the early 1980's, very high land prices and office rents and increasing commute costs had the effect of creating new office centers outside of San Francisco. The I-680 corridor in Central Contra Costa County and in Pleasanton experienced explosive growth in office construction. In Central County, 15.1 million square feet of office space has been built between the end of 1980 and the end of 1986. An additional 5 million square feet of space has been built in the Pleasanton-Livermore area in Alameda County.
- o The 15 million square feet of new offices constructed in Contra Costa County during 1980-1986 is located in five primary locations: the "core area" of downtown Walnut Creek (approximately 2.7 million square feet built in the last six years), the Shadelands office park area off Ygnacio Valley Road in Walnut Creek (1.1 million square feet); downtown Concord (2.8 million square feet); the Bishop Ranch Business Park (4.2 million square feet); and the Crow Canyon Road corridor in the City of San Ramon (2.3 million square feet).

- o The decision by several major corporations in San Francisco to relocate large divisions of office and clerical workers to Central Contra Costa County during the early 1980's has had a tremendous impact upon the region. Beginning in mid-1985, however, the combination of rising rents for new Class A office space along the I-680 corridor and depressed office rents in San Francisco due to an oversupply in the regional market, have made the economic advantages of relocation to Contra Costa less attractive than during the early 1980's. In addition, concerns about increasing traffic congestion, and voter approved slow growth initiatives in some Central Contra Costa cities have had an impact on relocations.
- o ABAG employment projections for Contra Costa County indicate 142,500 new jobs are expected to be created between 1985 and 2005. Over two thirds of these jobs will be in Central County, with the Concord and San Ramon areas adding 25,000-30,000 positions and Walnut Creek adding 13,000 jobs. Central County cities are projected to employ almost one quarter million people in the next century, an increase of 100,000 workers over 1985 levels. East County communities will create 25,000 new jobs over the next two decades, as residential development creates the demand for goods and services. West County will add 21,000 jobs.
- o The dynamic employment growth forecast for Contra Costa County during the next twenty years (142,500 jobs) is dwarfed by the number of new jobs which are projected for the Silicon Valley area in the South Bay. Santa Clara County is expected to add 333,000 workers, or one third of the 1.1 million new jobs created in the region. Neighboring Alameda County is anticipated to add 217,000 workers.
- o There is no magic formula or method that defines a jobs/housing "balance." The appropriate definition of a jobs/housing balance is as a qualitative, not quantitative, concept. The primary goal of achieving a better jobs/housing balance should be the reduction of long distance commuting, and, consequently, peak hour traffic. One of the best statistics to use in order to measure the jobs/housing balance is the ratio between jobs and employed residents, not households or housing units.
- o The "jobs/housing" ratio for the nine county San Francisco Bay Area is 0.97 jobs for every employed household in the region. San Francisco is the largest net job "exporter" in the region with 1.44 jobs per local worker, while Contra Costa has the lowest ratio in the region, 0.68 jobs per worker. Other counties in the region that currently have ratios of less than one job for each employed resident include Marin (0.72), Solano (0.81) and Alameda (0.93).
- o The most severe jobs imbalances within the County are in East County (the Route 4 corridor) which has over two employed residents for every job, as does the Lamorinda area (the Route 24 corridor). The I-680 corridor through North Central Contra Costa County has a ratio of 0.85, still below the regional average.

- o Although Contra Costa County is expanding its employment base and maturing into a more diversified part of the regional economy, throughout the next twenty year period it will still be the county with the lowest jobs/housing ratio. The balance is expected to worsen in the fast growing East County area, where the jobs to employed residents ratio will drop from the current 0.46 to 0.42 by the year 2000.
- o In Contra Costa County, there is only one area that currently has an average of more than one job for each employed resident; the Sphere of Influence area for Walnut Creek (1.15 jobs per worker). By 1990, the San Ramon area is also expected to measure a jobs/employed residents ratio of over 1.0 (1.27). Concord currently has 0.75 jobs per employed resident, but the ratio is forecast to jump to over 1.0 by the year 2005. The other communities that have jobs ratio nearest to 1.0 are Richmond (0.91 in 1985, but dropping in the future); Pleasant Hill (0.84 in 1985); Martinez (0.72); and San Pablo (0.71).
- o The most effective manner to promote a jobs/housing balance is at the sub-regional level. Reducing in- and out-commuting at the county level will not by itself solve some of the most severe traffic problems since much of the county's traffic results from commuting that goes on within one sub-area (such as Central County) or from one sub-area to another (such as the commute from an East County city to Central or South County). To complicate matters even further, Contra Costa has unique topographic constraints (i.e. Mt. Diablo and other coastal mountain ranges) that have dictated where the basic transportation corridors in the County have been developed and preclude the construction of any new corridors.
- o There are however, a number of policies that can be adopted and implemented in order to improve the jobs and housing picture. The most important concept is that **job growth needs to be accompanied at the same time by appropriate and adequate residential development, and vice versa**. More important than tabulating the ratio of jobs to housing is making sure that new employment growth is supported by an adequate amount of housing development. This housing needs to be built in synchronization with the new jobs, and should be of a type and price which is appropriate to those who will hold the new jobs.
- o Measures that the Association of Bay Area Governments (ABAG) suggests might be taken by jurisdictions in order to reduce the number and length of commute trips on adjacent freeways include:
 - Increasing the supply of housing close to employment center;
 - Encouraging the production of affordable housing;
 - Phasing housing construction with job growth;
 - Improving access to transit for home-to-work trips;
 - Encouraging commercial developers to locate near existing affordable housing; and
 - Increasing employment of local residents in new jobs.

III. POPULATION GROWTH IN THE COUNTY

Population Prior to 1900

Prior to the coming of the Europeans, the area of Contra Costa County was inhabited by three tribes of Native Americans: The Costanoans in the western half of the County; the Yokuts in the east, and branches of the Bay Miwoks in the interior valleys. The Indian population in the County and State was never substantial by modern standards. Estimates are that there were perhaps 150,000 natives living in California during the mid-to-late 18th century. By 1900, the State's Indian population had declined to 16,000.

In Contra Costa County, there were probably several hundred Native American residents when the first Spanish explorers arrived in the 1770's. Although very little is known about the early native settlements, Dr. Alfred Kroeber, noted University of California anthropologist, mapped a Miwok village called Saklan about five miles south of present day Martinez, a settlement called Wolwon several miles west of Mount Diablo, and village along the banks of San Ramon Creek. The Indians fished the valley streams, hunted game (including elk) in the hills, and made journeys over the mountain range to San Francisco or Suisun Bay for mussels, clams, and trade goods. The main staple of the Indian tribes was bread made out of acorns from the valley oaks. Over the years, latter day residents of Contra Costa County have located small stone mortars or larger tribal bedrock mortars that were used by villages to prepare acorns and seeds.

By 1900 only a handful of Indians were still living in the County. The decimation of the native population was due primarily to diseases brought in by the white man. For example, during the fall of 1833, a cholera epidemic wiped out many of the villages, followed by a smallpox epidemic in 1838. Native Americans in Contra Costa County and elsewhere in California were also killed in warfare with Europeans and physically exploited by early missionaries.

The first expedition to reach Contra Costa County was led by Captain Pedros Fages, who had been sent by the Spanish King to extend the frontiers of Mexico. The captain was in search of a land route from the Monterey presidio to the old Port of San Francisco (Point Reyes) when the party was turned back by the river at the Carquinez Straits. Fages returned to Monterey after spending one night at the base of Mount Diablo. Future explorers relied heavily on the excellent maps which Fages had prepared.

The County's name was derived from the early Spanish explorers, who called it "contra costa" (opposite coast) because of its location opposite San Francisco. By the 1820's, former Spanish soldiers had settled in San Pablo, El Pinole, San Ramon, Acalanes, Briones, and Monte de Diablo ranchos. One of the most famous of early County pioneers, Dr. John Marsh, built a large stone house at Rancho Los Medanos outside present day Brentwood. The Monte de Diablo land grant became the site of the Don Salvio Pacheco home, a portion of which still stands in downtown Concord.

The Bear Flag War ended in 1846, when California was surrendered by Mexico. The next period of population growth in Contra Costa County occurred during the years of the gold rush. Adventurers arrived in San Francisco from all over the world during the late 1840's and early 1850's, attracted by the discovery of gold in the foothills of the Sierra Nevada. The prospectors demanded a quick means of transportation to the diggings, which spurred development of a thriving inland steamboat industry through the Delta to Sacramento. Accompanied by the rush of gold diggers, towns along Suisun Bay and the Sacramento River grew as merchants and industry arrived to supply the prospectors.

The discovery of coal south of Antioch at the foot of Mount Diablo in 1855 further accelerated the natural population growth of the County. The mining towns of Nortonville and Somersville, bustling towns in the foothills near the Black Diamond Mines, housed thousands of people during the boom years of the 1860's through the 1880's. Coal was hauled out of the mines via horse drawn wagons, and later a small railroad line was built to the docks of "New York Landing," present day Pittsburg.

By 1852, the year the first census of population was taken by the State in Contra Costa County, some 2,800 settlers and Native Americans were counted. Just prior to the Civil War the population of the County had increased to 5,300, compared to a combined population in the San Francisco Bay Area of approximately 96,000 in 1860, up from roughly 20,000 at the time of statehood.

During the 1860's, the inland towns of Concord, Walnut Creek, Alamo and San Ramon became natural stopping points along the stagecoach route between Martinez and San Jose. The stagecoach was eclipsed as the primary mode of transportation by the railroads, which came to Contra Costa County during the late 1870's, when Central Pacific (Southern Pacific) opened a rail line from Oakland along the shoreline to Martinez and then on to Tracy. Railroad access into the County spurred further population growth and made it a major distribution point for local agricultural products, especially wheat.

Wheat farming had become well established in Contra Costa during the 1850's, but it wasn't until the 1880's that the crop had transformed the shoreline between Crockett and Antioch into a series of wharves and wheat warehouses. Railroad cars delivered sacks of wheat from Central Valley ranches to Port Costa, making it the wheat shipping capital of the world in 1885.

The County's population of almost 8,500 in 1870 grew to over 12,600 by 1880, buoyed by the prosperity of the period. The first communities to formally incorporate themselves in the County were Antioch (1872) and Martinez (1876). During the 1880's, Contra Costa County's population remained relatively stable, increasing by only about 1,500 residents.

The following decade of the "Gay Nineties" also saw relatively modest growth. By the turn of the century, the County included slightly more than 18,000 people, compared to the San Francisco regional population of over 600,000. Although Contra Costa was largely rural in 1900 and its largest city, Martinez, with a population of 1,400 was tiny in relation to the developing cities of the region, the stage had already been set for the impressive amount of growth which was to come during the twentieth century.

Population Growth Since 1900

The period since 1900 has seen a rapid rate of growth in California, the San Francisco Bay Area, and in Contra Costa County. Increasing from only 2.8 percent of the nine county Bay Area population in 1900 to 13.0 percent in 1988, Contra Costa until the 1970's and 1980's grew faster than the region, state, or the nation (see Table III-1). Since 1970, however, the state's dynamic growth rate has been higher than the County.

During the first two decades of the twentieth century, Contra Costa's population began to grow by leaps and bounds. Between 1910 and 1920, the County added over 20,000 new residents, more people than had lived in Contra Costa in 1900. A significant amount of the growth prior to World War II occurred in West County, where the City of Richmond grew from only 6,800 residents in 1910 to almost 21,000 in 1930. Richmond's rapid growth was partly a result of a decision by Standard Oil to build one of the world's largest refineries in the city in 1902. The refinery and tank farm quickly became the center for the oil industry in the western U.S. and employed hundreds of workers.

During the 1920's and 1930's there were also substantial population increases in Pittsburg (4,800 new residents), El Cerrito (4,600), and Antioch (4,200). The rural communities of the interior valley were still sparsely populated at the onset of the 1940's: Walnut Creek and Concord had less than 2,000 residents between them.

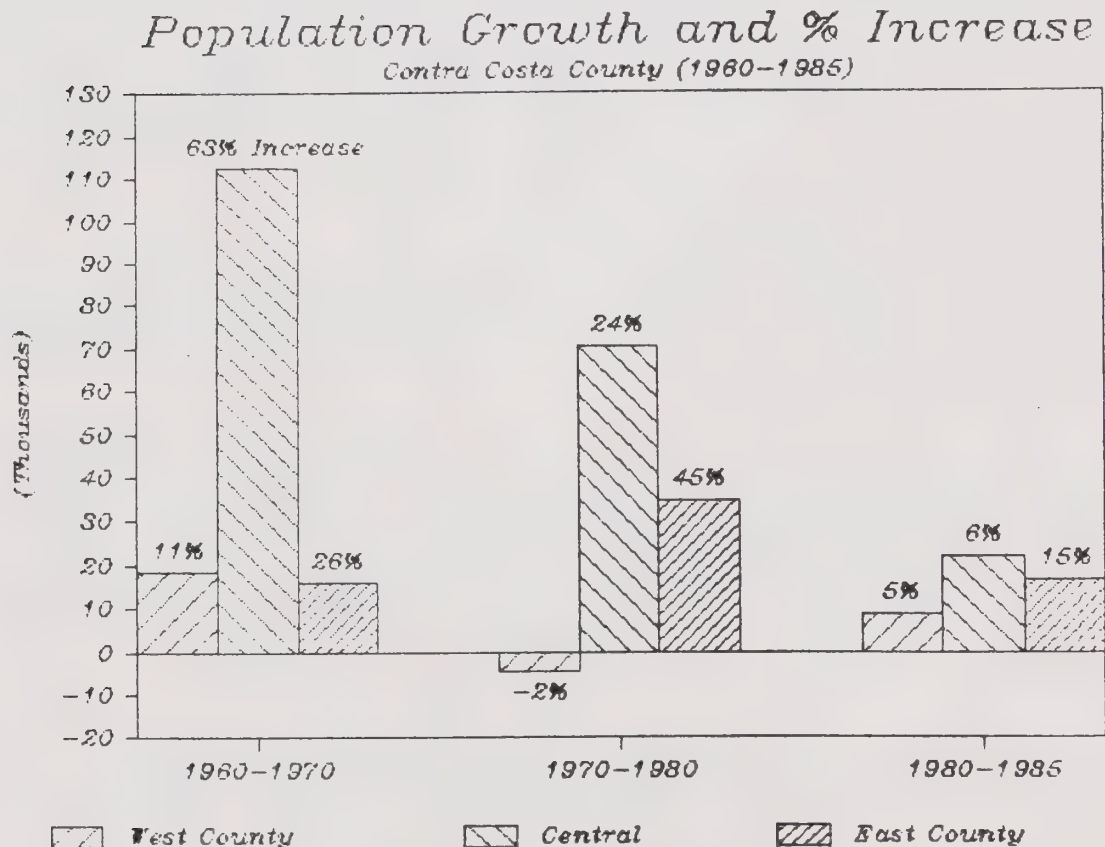
By far the greatest amount of population growth in Contra Costa County has occurred since World War II. During the decade 1940-1950, the County virtually tripled in population from 100,450 to 298,984. This population explosion was due to the influx of workers drawn by World War II industries and the availability of new homes and low interest GI home loans in the late 1940's. This loan policy by the federal government helped to create much of the impetus after the war for the suburbanization trend that occurred nationwide.

Suburbanization in Contra Costa was further aided by the opening of the Caldecott Tunnel in 1937, which provided fairly direct access to the labor markets of Oakland and San Francisco for residents in the valley area of the Central County. It was not, however, until after the close of the war that development began to take place there. While the extremely high rate of growth that took place during the 1940's did not continue in the following decades, the County sustained a steady increase of over 110,000 people between 1950 and 1960 and an additional 147,000 residents between 1960 and 1970. Since 1970, Contra Costa County has continued to be an important location for new home construction in the San Francisco Bay region. Over 100,000 new residents moved into the County during the 1970's, which equalled an 18 percent growth rate compared to 12 percent growth in the region for the same decade.

Population growth in Contra Costa County over the last 25 years has been primarily oriented toward the central portion of the County, which includes the cities of Walnut Creek, Pleasant Hill, Concord, Martinez, and also the San Ramon Valley. Between 1960 and 1970 three-quarters of the population growth in Contra

Costa occurred in Central County; during the 1970's, seventy percent of the increase was located in that area (see Figure III-1) Although the actual rate of growth since 1970 has been much more rapid in East County, including the Pittsburg, Antioch, Oakley, and Brentwood areas, it has not been until recently that the absolute amount of population increase has begun to rival the Central County cities.

FIGURE III-1



The most recent residential growth centers in the County have been located in three specific areas, which is largely a continuation of general trends. During the period 1980-1988 the greatest population growth occurred in the North Central cities of Martinez, Walnut Creek, Pleasant Hill, and Concord; the Pittsburg-Antioch-Oakley areas of East County; in the San Ramon Valley, and within the cities of Hercules and Richmond in West County. (A more detailed discussion of recent residential construction in the County is included in Chapter IV.)

TABLE III-1
COMPARATIVE POPULATIONS AND GROWTH RATES
(1900-1988)

Year	California Rate of Growth (%)	San Francisco Bay Area (nine counties)	Contra Costa County	Contra Costa County Rate of Growth (%)	Contra Costa County as Percent of the San Francisco Bay Area
1900	-	658,111	18,046	-	2.8%
1910	60.1%	885,708	31,674	75.5%	3.4
1920	44.1	1,182,893	53,889	70.1	4.6
1930	65.7	1,578,009	78,608	45.8	5.0
1940	21.7	1,734,308	100,450	27.7	5.8
1950	53.3	2,681,322	298,984	197.6	11.2
1960	19.0	3,638,939	409,030	36.8	11.2
1970	13.3	4,628,199	555,805	36.5	12.1
1980	18.5	5,179,793	656,380	18.1	12.7
1988 ¹	18.4	5,793,500	753,500	13.0	12.9

Source: U.S. Department of Commerce, Bureau of the Census, Censuses of 1900 to 1980, Table P-1.

Note: ¹Estimate from the California Department of Finance, as of January 1, 1988.

Change From Rural to Urban

The growth of population in Contra Costa County has been typified by the expansion of existing urban areas accompanied by the transformation of previously small towns and rural areas into rapidly growing cities. The City of Concord, for example, with a population of 1,373 in 1940 grew to 85,000 by 1970 and to almost 109,000 by 1988. The population for each of the County's incorporated cities is shown in Table III-2.

Looking back to 1900, the majority of the County's population was rural. There were only two incorporated cities, Martinez and Antioch. Only Martinez, the County seat, had enough population at the turn of the century to be classified as a small town. The County as a whole was considered entirely rural in 1900 by the Census Bureau. In fact, the plot map for Richmond, the County's largest city until the 1960's, was not filed with the County Recorder until 1899, with the first public sale of lots taking place in 1902.

In 1900 and 1910, the population in the unincorporated area of the County was considerably higher than that of the incorporated cities. However, by 1920, there were nine cities incorporated with almost 60 percent of the County's population. Most of this growth took place in the western area of the County, with the City of Richmond accounting for nearly half of the County's 22,200 new residents during the 1910-1920 period. The County continued to grow an average of about 2,300 people per year until 1940 when the impact of a war economy and the nationally-influenced suburbanization trend was felt.

From 1950 onward to the present day, the center of County growth has shifted to the Central Valley area and made itself most strongly felt in the cities of Concord and Walnut Creek. With a combined population of only 9,383 in 1950, representing slightly over 3 percent of the total County population, the two cities have grown to over 171,000 in 1988, or 23 percent of the County. This type of rapid growth has transformed Contra Costa County over the last 38 years from a semi-rural environment to a major suburban area.

Whereas adjacent Alameda County had a majority of residents classified as urban dwellers as early as 1880, it was not until 1930 that the same was true for Contra Costa County. During the 1950's, as the "flight to the suburbs" migration pattern began to take hold on a nationwide scale, Contra Costa County experienced the rapid urbanization characteristic of many American metropolitan areas. Although 97 percent of the County's population is now classified "urban" by the U.S. Bureau of the Census, it is often regarded as a "suburban" county, with moderate population densities. The County's population, however, ranges widely from a very dense urban environment in the West County cities to the sparsely settled rural agricultural areas in the eastern portion of the County.

Growth and Municipal Boundaries

The general pattern of population expansion in Contra Costa County since World War II has been largely directed toward the central valley and north coastal areas of the County. This represents a major shift from the West County cities of Richmond, El Cerrito, Pinole, San Pablo and the unincorporated Kensington

CITY AND COUNTY GROWTH
1900-1988

Jurisdiction	1900	1910	1920	1930	1940	1950	1960	1970	1975	1980	1988 ¹
Antioch	694	1,124	1,936	3,563	5,106	11,051	17,305	28,060	33,215	42,683	54,206
Brentwood	----	----	----	----	----	1,729	2,186	2,649	3,662	4,434	6,407
Clayton	----	----	----	----	----	----	530	1,835	1,790	4,325	6,734
Concord ²	----	703	912	1,125	1,373	6,963	36,208	85,164	94,673	103,255	108,941
Danville	----	----	----	----	----	----	----	----	----	----	28,891
El Cerrito	----	----	1,505	3,870	6,137	18,011	25,437	25,190	22,950	22,731	23,132
Hercules ³	----	279	373	392	343	343	310	252	121	5,963	12,589
Lafayette	----	----	----	----	----	----	16,550	20,484	19,628	20,879	22,552
Martinez ⁴	1,380	2,115	3,858	6,569	7,381	8,268	9,604	16,506	18,702	22,582	29,842
Moraga ²	----	----	----	----	----	----	----	11,327	14,418	15,014	15,855
Orinda	----	----	----	----	----	----	----	----	----	----	17,355
Pinole	----	798	967	781	834	1,147	6,064	13,266	15,337	14,253	15,248
Pittsburg ³	----	2,372	4,715	9,610	9,520	12,763	19,062	20,651	24,347	33,034	43,012
Pleasant Hill	----	----	----	----	----	----	19,170	24,610	25,398	25,124	30,672
Richmond	----	----	16,843	20,093	23,642	99,545	71,854	79,043	70,126	74,676	81,511
San Pablo ²	----	----	----	----	----	14,476	19,687	21,461	19,392	19,750	21,457
San Ramon	----	----	----	----	----	----	----	----	----	----	30,404
Walnut Creek	----	----	538	1,014	1,578	2,420	9,903	39,844	46,034	53,643	62,538
Incorporated	2,054	14,193	31,647	47,017	56,014	176,706	217,620	378,565	409,793	462,346	611,346
Unincorporated	515,992	17,481	22,242	31,591	44,436	122,276	191,410	177,240	173,036	194,034	142,110
Total County	18,046	31,674	53,889	78,608	100,450	298,984	409,030	555,805	582,820	656,380	753,456

Source: U.S. Bureau of the Census; California State Department of Finance;
Contra Costa County Community Development Department.

Notes:

- ¹ January 1, 1988 population estimates by California State Department of Finance.
- ² In 1980 Danville, San Ramon, and Orinda were unincorporated.
- ³ In 1960 Clayton, Lafayette and Pleasant Hill were unincorporated.
- ⁴ In 1970 Moraga was unincorporated.

area, which absorbed most of the population growth before and during the war. Prior to the period of suburban "boom" following World War II, most growth in the central valley areas of the County centered around the existing concentrations of population, including the communities of Martinez, Walnut Creek, Concord. When public services became more readily available, growth took a less centralized pattern, a trend which has continued to characterize the present growth configuration.

As the County's population shifted from the west to the central areas, much of the new growth occurred in territory that was originally unincorporated. As a population center grew, it was annexed into one of the adjacent cities or, if the area was large enough and had an identifiable history as a distinctive sub-community, it was itself incorporated into as a city. Growth in Central County since World War II has triggered the formation of seven new cities: Pleasant Hill (incorporated in 1961), Clayton (1964); Lafayette (1968); Moraga (1974); Danville (1982); San Ramon (1983); and Orinda (1985). During the same period only one new city was incorporated in West County (San Pablo in 1948) and one city in East County (Brentwood, also in 1948).

While a significant amount of population growth since World War II has occurred in unincorporated areas of Contra Costa County, the relative portion of the population which lies outside city boundaries has been steadily declining. Due to annexations and municipal incorporations, the proportion of residents living in unincorporated areas has fallen from roughly one half of the total population in 1960 to less than one fifth in 1988 (see Table III-3).

TABLE III-3

TOTAL POPULATION AND PERCENTAGE OF
INCORPORATED POPULATION BY SUB-AREA
CONTRA COSTA COUNTY
(1970-1988)

	1970 (% in Cities)	1980 (% in Cities)	1988 (% in Cities)
East County	76,424 (67%)	110,837 (72%)	135,513 (73%)
Central County	290,779 (65%)	361,837 (68%)	398,298 (86%)
West County	188,602 (69%)	184,151 (75%)	198,639 (78%)
TOTAL	555,805 (69%)	656,380 (70%)	753,450 (81%)

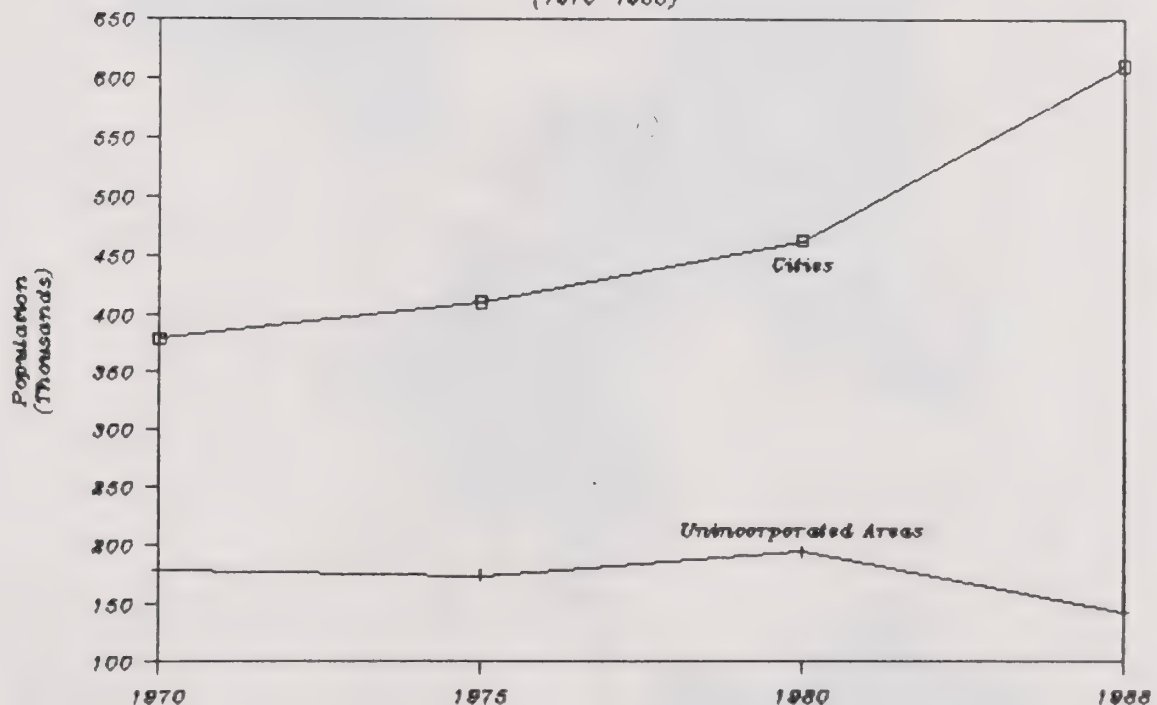
Sources: U.S. Department of Commerce, Bureau of the Census, 1970 and 1980 Census, Table P-1 (census tract data); California Dept. of Finance city estimates for January 1, 1988; January 1, 1988 unincorporated estimates prepared by Contra Costa County Community Development Dept.

Figure III-2 is a map of the County which shows major jurisdictional changes including all annexations and incorporations, for the period 1970 to 1988. The largest amount of land transferred out of County jurisdiction has been the result of three incorporations during the 1980's: the Town of Danville (incorporated in 1982), the City of San Ramon (1983), and Orinda, which officially became a city in July, 1985. Major annexations of unincorporated lands have occurred during the last ten years in the San Ramon Valley; in the Castro Ranch Road area of Richmond and in Hercules; in Lafayette, Walnut Creek, and Clayton; and in the growing southeast area of Antioch and the lands west of Brentwood. Most recently, large areas have been added to the cities of Danville and San Ramon, as the Bishop Ranch Business Park, the huge Canyon Lakes project and several other Tassajara subdivisions have been completed and immediately annexed.

Figure III-3 graphs the relationship between population growth occurring within County and city jurisdictions from 1960 to the present. From a high of almost 195,000 residents living outside city boundaries in 1968 (just prior to the incorporation of Lafayette), the unincorporated population in the County has declined to approximately 142,000 in 1988.

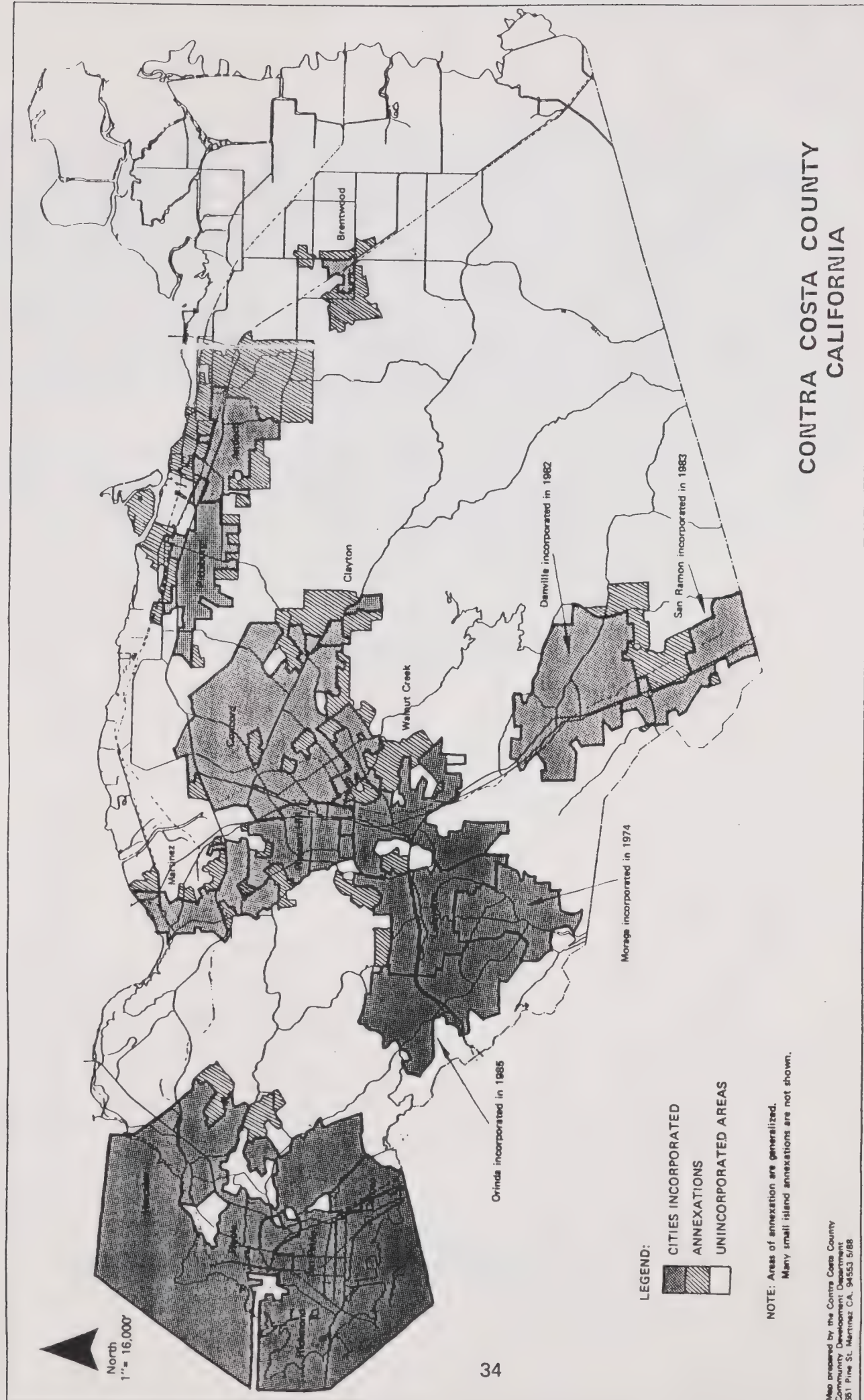
FIGURE III-3

City/County Population (1970-1988)



Source: U.S. Bureau of the Census (1970 and 1980);
Contra Costa County Special Census of 1975;
California Dept. of Finance estimate (1988)

FIGURE III - 2
INCORPORATIONS AND ANNEXATIONS
1970 - 1988



CONTRA COSTA COUNTY
CALIFORNIA

Contra Costa's Population Growth in Comparison to the State and Region

Contrary to some common perceptions, Contra Costa County has not been one of the fastest growing areas in California during the most recent period of 1980 to 1988. Since the U.S. Census taken in April, 1980, California has grown by almost 4.4 million residents. The urbanized area in Southern California, consisting of the Los Angeles Basin, Ventura and Orange Counties, and the San Diego metropolitan region, now contains an estimated population of 15.9 million, while the State population has surged to over 28 million (see Table III-4).

TABLE III-4
POPULATION GROWTH IN
SELECTED CALIFORNIA COUNTIES
(1980-1988)

<u>County</u>	<u>Pop. Increase (1980-1988)</u>	<u>% Increase (1980-1988)</u>	<u>1988 Population</u>
Los Angeles	1,078,500	14.4%	8,555,900
San Diego	465,200	25.0	2,327,300
Orange	305,800	15.8	2,238,700
San Bernardino	345,000	38.5	1,240,000
Riverside	282,900	42.7	946,100
Ventura	108,200	20.4	637,400
Sub-total: LA-San Diego	2,585,600	19.4	15,945,100
Sacramento	178,500	22.8	961,900
San Joaquin	103,700	29.9	451,000
San Luis Obispo	48,900	31.5	204,300
Lake	15,000	41.2	51,400
Sierra foothills/ Mother Lode (9 counties)	121,300	35.3	465,300
Bay Area:			
Santa Clara	136,500	10.5	1,431,600
Alameda	136,200	12.3	1,241,600
Contra Costa	97,200	14.8	753,500
San Francisco	62,300	9.2	741,300
San Mateo	40,200	6.8	627,500
Sonoma	60,600	20.2	360,300
Solano	68,300	29.0	303,500
Marin	5,800	2.6	228,400
Napa	6,600	6.7	105,800
Sub-total: SF Bay Area	613,700	11.8	5,793,500
Total: California	4,351,000	18.4	28,019,000

Source: U.S. Census of 1980; California Dept. of Finance
estimates for July 1, 1988. Figures have been rounded.

According to the estimates prepared by the State Department of Finance, the largest numerical increases in population since the 1980 Census have occurred in the counties of Los Angeles, San Diego, Orange, San Bernardino, and Riverside. Growth in these five counties alone has accounted for almost 2.6 million new residents, or more than half (59%) of the population increase in the entire State. Only 12% of California's population growth during the same period occurred in the San Francisco Bay region.

In terms of the percentage increase in population (the rate of growth), the LA-San Diego area overall has grown at a rate of almost 20% between 1980 and 1988, with growth rates of double that amount (38.5% and 42.7%, respectively) registered in San Bernardino and Riverside Counties.

In contrast to Southern California, the Bay Area has grown by about 600,000 persons since 1980, representing a 11.8% increase (see the previous Table III-4). The Bay Area is now home to 5.8 million residents scattered throughout nine counties.

Three of the counties in the Bay region have grown very slowly over the last eight years (Marin, Napa, and San Mateo), the four largest counties (Santa Clara, Alameda, Contra Costa, and San Francisco) have grown at a rate of 9% to 15%, significantly less than the statewide average of 18%, while the remaining two northern counties (Solano and Sonoma) are experiencing more rapid growth rates of 20.2% and 29.0%, as they change from a rural to suburban environment.

Although Contra Costa's growth rate for the 1980 to 1988 period (14.8%) was higher than the regional average, it's interesting to note that in the East Bay, Alameda County has added 40% more residents (136,200) since 1980 than Contra Costa (97,200).

According to population growth estimates for the most recent one year period, the State grew by 681,000 persons between January 1, 1987 and January 1, 1988. More than one half of the gain (57%) was the result of in-migration, while 43% of the growth was due to natural increases (births and deaths). The jump in population was the biggest one year increase since 1942-1943, when defense industries lured thousands of workers and their families to the State.

Almost sixty percent (408,300) of the most recent new residents settled in the greater Los Angeles-Orange-San Diego metropolitan areas of Southern California. The net increase in the San Francisco Bay Area's population during the last year amounted to 88,300 additional residents (see Table III-5 on the following page).

Last year, California as a whole grew at an annual rate of 2.5%. Some of the fastest growing urban counties in the state continued to be located in Southern California, including Riverside (a 6.6% increase), San Bernardino (6.3%), and San Diego (3.5%). Other counties that are growing faster than the statewide average are located in the Bay Area (Solano and Sonoma), in the Central Valley (San Joaquin, Sacramento), in the foothills of the Sierra, and on the Central Coast (San Luis Obispo).

In the two population centers of the state, the six counties of the huge Los Angeles-San Diego megalopolis are growing at a rate of 2.6%, while the nine counties of the San Francisco Bay Area are growing at a much slower rate (1.5% annually).

TABLE III-5
POPULATION GROWTH IN
SELECTED CALIFORNIA COUNTIES
(1987-1988)

<u>County</u>	<u>Population Increase</u>	<u>Percentage Increase</u>
Los Angeles	137,300	1.6%
San Diego	79,200	3.5
Orange	43,000	2.0
San Bernardino	73,000	6.3
Riverside	58,700	6.6
Ventura	17,100	2.8
Sub-total: LA-San Diego	408,300	2.6
Sacramento	31,800	3.4
San Joaquin	13,800	3.2
San Luis Obispo	6,200	3.1
Lake	1,500	3.0
Sierra foothills/ Mother Lode (9 counties)	23,600	5.3
Bay Area:		
Santa Clara	16,500	1.2
Alameda	23,200	1.9
Contra Costa	17,400	2.4
San Francisco	-1,000	-0.1
San Mateo	7,400	1.2
Sonoma	11,500	3.3
Solano	11,000	3.8
Marin	1,400	0.6
Napa	900	0.9
Sub-total: SF Bay Area (9 counties)	88,300	1.5
Total: California	681,000	2.5

Source: California Dept. of Finance estimates
for January 1, 1987 and January 1, 1988.

Table III-5 indicates that the most rapidly growing region of California (a 5.3% growth rate last year) is the Mother Lode country, consisting of the retirement and recreation communities in the Sierra Nevada foothills stretching from Mariposa to Sierra County, including Lake Tahoe and some of the growing suburbs of the Sacramento region in Placer and El Dorado Counties.

The most recent population estimates in Tables III-4 and III-5 also show that **during the last year Contra Costa County has surpassed San Francisco as the third largest county in the region, and has become the ninth largest county in the State.** While Contra Costa has grown at a steady rate, the population in San Francisco has actually declined in the last year, losing 1,000 residents between January, 1987 and January, 1988.

Racial Composition in Contra Costa County

As Contra Costa County has grown it has become more racially diverse. In 1940 less than 5 percent of the County's population was composed of minorities, by 1980, almost 20 percent was of minority origin (see Table III-6). Much of the increase in minority population occurred during the World War II years, when large numbers of blacks migrated from the southern U.S. to work in Richmond's shipyards. Other areas of minority migration in East County are the West Pittsburg and City of Pittsburg areas (concentrations of both blacks and people with Spanish surnames) and the agricultural areas further east.

The racial composition of the population continues to vary by area of the County. While 81.5% of the overall population was white in 1980, the proportion was 60.5% in West County and 92.9% in Central County. West County had the highest proportion of blacks (25.7%), while East County and Central County had 7.8% and 1.2%, respectively. In 1980, West County also had the highest proportion of Asians, 7.5% percent versus 4.7% for the total County. The area with the largest proportion of Spanish origin population was East County (17.2%), while the percentage for the County overall was 8.5%. It is expected that some of these percentages will change significantly after the results of the 1990 Federal Census are released.

TABLE III-6
CONTRA COSTA COUNTY
RACIAL AND ETHNIC COMPOSITION BY SUB-AREA
(1980)

	<u>West</u>	<u>Central</u>	<u>East</u>	<u>County</u>
White	60.5%	92.9%	79.0%	81.5%
Black	25.7	1.2	7.8	9.2
American Indian	0.7	0.4	1.0	0.6
Asian	7.5	3.6	3.6	4.7
Other	5.6	2.0	8.8	4.1
Total Persons	184,151	361,392	110,837	656,380
Spanish	9.8%	5.2%	17.2%	8.5%

Source: U.S. Department of Commerce, Bureau of the Census,
1980 Census of Population, STF-1.

Population and Household Growth During the 1980's

One of the most striking and well documented changes in the demography of California and the nation during the decade of the 1970's was the decrease in average household size. In the state, the number of people occupying the average household was almost 3.0 in 1970; by 1980, the average had dropped over 10 percent to less than 2.7 persons (see Table III-7). Following state and national trends, the average household size in the nine county San Francisco Bay region decreased from 2.9 persons to 2.57 persons during the 1970's, while the average in Contra Costa County plummeted from almost 3.2 persons per household to less than 2.7 ten years later.

The major factors contributing to the decline in household size in the 1970's were the large number of young individuals entering the labor force who set up their own household, and the increase in the number of households headed up by individuals over the age of 65. Declining household size also reflected the changing structure of the family, with an increasing number of female headed households, and lower birth rates.

In Contra Costa County, the average household size has remain higher than the average for the region, although the difference today is much less than it was in 1970. The County has undergone many of the same changes in household composition as other areas of California that have been transformed from rural-suburban environments to more urbanized areas. For example, two of the most rapidly growing counties in California's Central Valley have been Sacramento and Fresno, which have experienced a drop in household size comparable to Contra Costa.

After the steep declines in household size during the 1970's, recent population and housing estimates indicate that the shrinking averages may have stabilized or actually reversed themselves in some areas (see Table III-7). The statewide average household size has increased from 2.68 persons in 1980 to 2.72 persons in 1988, reflecting changes that have largely occurred in California's urban population.

Household sizes in the high growth counties of Southern California have remained stable or even increased since 1980, due primarily to the growth in the number of minority households, which tend to have more persons per household. Some of this change may be traced to the growing influx of legal and illegal aliens into key counties. Since 1985, the California Department of Finance has included in its annual population reports an estimate of the number of illegal immigrants in each county, which were previously not included in the totals. A secondary factor behind the rising household sizes in some counties may be the baby "boomlet" occurring during recent years.

Between 1980 and 1988, the household size in the nine county San Francisco Bay Area remained stable at about 2.56 persons per household, although there has been a dramatic increase in household size registered in San Francisco. In Contra Costa County, as well as Sonoma, the average household size has declined significantly during the 1980's. Contra Costa's household size has dropped from 2.69 persons per home in 1980 to 2.59 persons in 1988. The County's average household size is now only slightly higher than the average for the San Francisco Bay region (see Table III-7).

TABLE III-7

CHANGE IN HOUSEHOLD SIZE OF CONTRA COSTA
AND OTHER SELECTED CALIFORNIA COUNTIES
(1970-1988)

<u>County</u>	<u>1970</u>	<u>1980</u>	<u>1988</u>
Alameda	2.84	2.53	2.53
Contra Costa	3.19	2.69	2.59
East County	3.20	2.85	N/A
Central County	3.29	2.67	N/A
West County	3.04	2.63	N/A
San Francisco	2.34	2.19	2.29
Santa Clara	3.23	2.76	2.75
Sonoma	2.92	2.56	2.50
San Francisco Bay Area	2.90	2.57	2.56
Sacramento	3.08	2.56	2.77
Merced	3.35	2.97	3.12
Fresno	3.20	2.83	2.79
Los Angeles	2.83	2.69	2.83
San Diego	2.94	2.62	2.62
TOTAL-California	2.95	2.68	2.72

Sources: U.S. Department of Commerce, Bureau of the Census, 1970 Census of Population, Table 16, 1980 Census of Population, Table 14; California State Department of Finance population and housing unit estimates for January 1, 1988.

The changing relationship between population and household growth has tremendous implications for local jurisdictions in terms of future housing demand. During the 1970's, the demand for new housing units on a state and local level was much greater than the market could provide. A dramatic rise in interest rates during the early 1980's, as well as other structural changes in the nation's financial markets which favored commercial construction over housing, also contributed to the serious housing shortage which existed in most urban areas in California until recently.

Household growth rates in many parts of the state are now slightly less than the rate of population increase. This new trend, which is reflected in the slightly higher sizes of the average household, may be caused by factors already mentioned: significant immigration into California communities of Southeast Asian and other foreign groups that traditionally have much larger families, as well as the baby "boomlet" being experienced during the mid-1980's.

Changing Age Structure

In addition to changes in average household size, dramatic changes are beginning to appear in the age structure of the California and national population. The long term trends toward smaller families, reduced birth rates, and the aging of the "Baby Boom" generation have contributed to an overall "graying" of the population. In California and elsewhere, the proportion of the population over 65 years old is increasing, while the proportion who are children has become significantly smaller.

Statewide, almost 11 percent of all residents are over 65, up from 9 percent in 1970 (see Table III-8). In the San Francisco Bay Area, the change has been even sharper. Contra Costa County's elderly group increased from less than 7 percent of the population in 1970 to 10.7 percent in 1985.

State Department of Finance (DOF) projections for Contra Costa County indicate that the elderly population is expected to grow by ~~34~~ percent between 1985 and the year 2000, while the portion of the population which is under 15 years old will continue to fall (see Figure III-4). There are currently approximately 82,000 residents over age 65 in the County; by the turn of the century, their number will grow to over 110,000 and make up 12.7 percent of the population. The significant increase in the elderly population in both Contra Costa County and the rest of the nation has important ramifications in terms of what kind of housing should be planned for that unique group and how the cost of health care for the aging population will be met.

Accompanied by the overall "graying" of the population the increases in the number of children in Contra Costa County have lagged far behind general population growth. While children under 15 years old made up almost 30 percent of the population in 1970 they now are only 21 percent of the total. Between 1980 and 1985, there was a small increase in the number of children in the County from approximately 145,000 to 148,000, a growth rate of only 2.6 percent. By the

TABLE III-8

CHANGE IN AGE STRUCTURE OF
CONTRA COSTA AND OTHER SELECTED CALIFORNIA COUNTIES
(1970-2000)

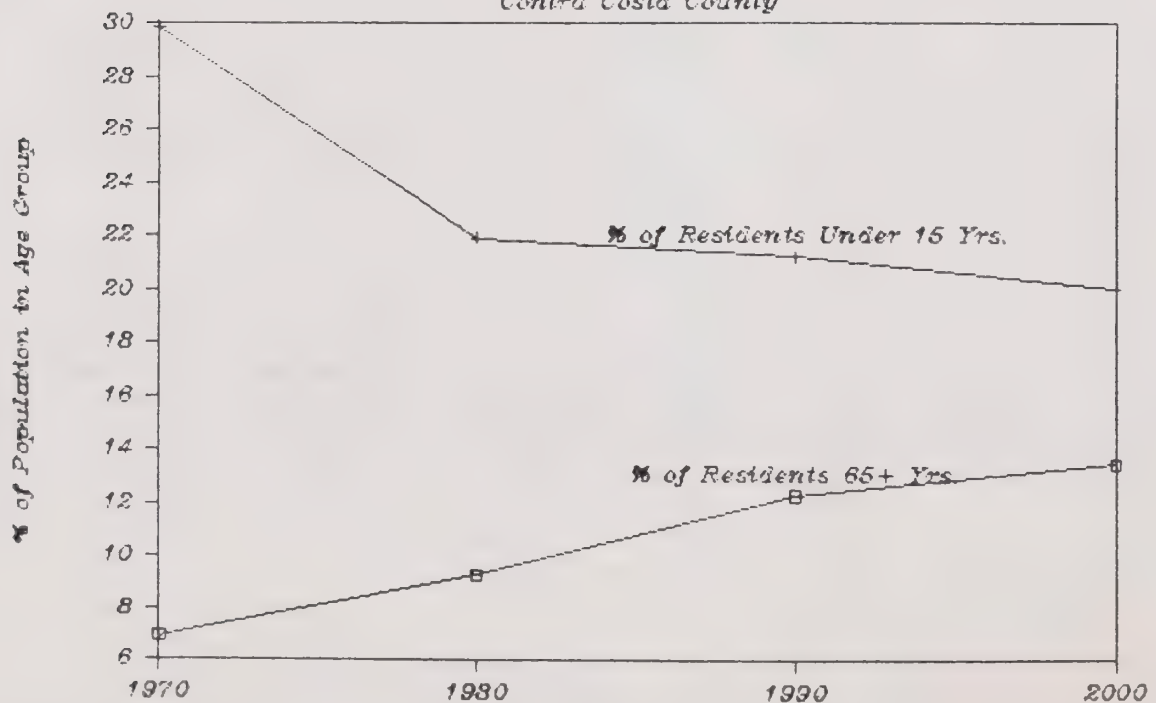
	<u>% of Population over 64</u>			<u>% of Population Under 15</u>		
	<u>1970</u>	<u>1980</u>	<u>2000¹</u>	<u>1970</u>	<u>1980</u>	<u>2000¹</u>
Alameda	9.2	10.3	11.1	26.1	20.1	20.9
Contra Costa	6.9	9.3	12.7	29.9	21.9	20.6
San Francisco	3.9	15.4	18.0	18.5	13.7	14.5
Santa Clara	6.0	7.5	9.7	30.9	22.0	20.3
Sub-Total:						
San Francisco Bay Area	8.8	10.3	12.2	26.7	20.0	19.4
Fresno	9.0	10.1	10.6	29.7	24.2	25.5
Los Angeles	9.3	9.9	11.8	26.8	22.0	23.4
TOTAL: California	9.0	10.2	11.6	27.7	21.8	21.7

Sources: U.S. Dept. of Commerce, Bureau of the Census, 1980 Census of Population, Tables 20 and 46; California State Dept. of Finance (DOF) age/sex population projections for July 1, 2000 (Report 86-P-3).

Note: ¹Projection for July 1, 2000 by DOF (1986).

FIGURE III-4

Change in Age Structure (1970-2000)
Contra Costa County



year 2000, the number of County residents under 15 years old is projected to increase by only 20,000. The impact of a declining youth population is felt most immediately in the public school system. Numerous schools in Contra Costa County and elsewhere have already been closed due to declining enrollments. On the other hand, in localized situations (e.g. the Oakley area) where a primarily rural community becomes the location of new residential subdivisions, existing educational facilities often lag behind the burgeoning school age population.

Based upon the results of the 1980 census, the age structure of the western, central, and eastern portions of the County differ only to a small degree, with the East County area having the youngest population. A greater variation in the median age of the population does exist, however, between specific communities rather than between the three geographical portions of the County. In West County, median age varies considerably from older established areas like Kensington (a median of 41.0 years) and El Cerrito (40.1) to Richmond (30.0) and the new city of Hercules (28.4). Central County has a range from Walnut Creek (39.6) and Orinda (38.5) to Concord (29.6) and San Ramon (30.1). The East County communities have the widest variation in median age among their population, with Oakley (25.9) and Antioch (27.8) at the young end and Bethel Island (48.6) at the older end.

Population Projections

Projections of future population growth in the cities and counties within the nine county San Francisco metropolitan region are compiled on a regular basis by the Association of Bay Area Governments (ABAG). The ABAG projections are "driven" by economic and demographic mathematical models and constrained by examining local governments' plans, policies, and regulations affecting land development. The projections are reviewed by local agencies for comment and revision prior to their publication.

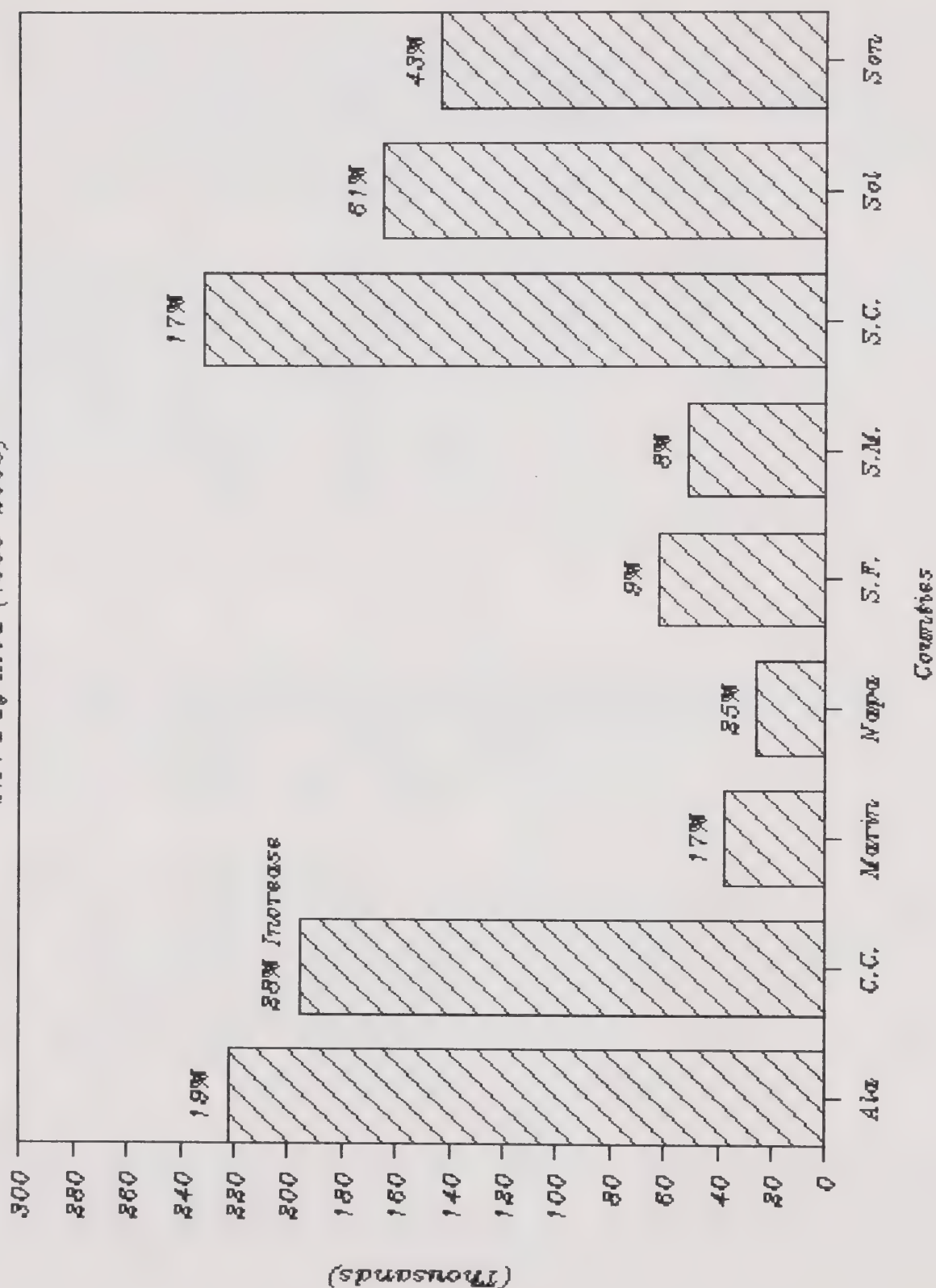
The most recent publication released by ABAG (Projections '87) forecasts demographic trends over the next twenty years, presented in five year increments. Countywide projections have been prepared for each of the nine San Francisco Bay Area counties, as well as projections of population increases within individual subregional areas of each county. The subregional areas delineated by ABAG generally conform to the "Sphere of Influence" boundaries around each city in the unincorporated areas. Boundaries are approved by the Local Agency Formation Commission of each county as a guide to where future urbanization (and annexation) may occur within the reasonably foreseeable future.

Over the forecast period 1985-2005, revised ABAG projections indicate that the population of the nine county Bay Area could increase by over one million people. Contra Costa County's population could grow from 705,000 to 901,000, an increase of 196,000 persons or 28 percent above the 1985 level (see Figure III-5). Only the two largest counties in the San Francisco region, Santa Clara and Alameda County, are expected to increase their populations by a greater

FIGURE III-5

ABAG Population Growth and % Increase

S.F. Bay Area (1985-2005)



absolute amount than Contra Costa during the 20 year period (an additional 232,300 and 222,600 persons, respectively). The latter two counties are projected to grow at a 17 percent and 19 percent rate for the twenty year period, slightly less than the growth for the overall region (21 percent). The fastest growing counties in the region are expected to be Solano (a 61 percent increase in population) and Sonoma (43 percent).

According to Projections '87, the greatest amount of population growth in Contra Costa over the 20 year period is expected to occur within the Spheres of Influence of the eastern communities of Antioch, Oakley, and Brentwood (see Table III-9). The Antioch Sphere area is anticipated to add 40,200 new residents to its 1985 population, an increase of 80 percent. The Brentwood sphere is projected to grow from only 7,300 people into a significant new suburban center composed of almost 30,000 residents by the year 2005. The remainder of rural East County, including the Oakley area, is expected to more than double its population over the 20 year period to almost 41,000. Coupled with future growth within the Pittsburg Sphere, the entire East County area is projected to grow by approximately 100,000 persons, an increase of over 78 percent.

Brentwood is expected to be the fastest growing subregion in the entire San Francisco Bay Area over the next 20 years (a 304 percent increase), according to ABAG's 1987 projections. The only other subregions which will grow at comparable rates in other parts of the region are the rural East Contra Costa County area (a 147 percent increase); Dublin in Alameda County (164 percent); Suisun City and Rio Vista in neighboring Solano County (120 percent and 143 percent, respectively); and the Windsor area north of Santa Rosa in Sonoma County (145 percent). East County will grow at a rate of approximately 15 percent for each five year period, two or three times the growth rate forecast for the County as a whole.

It should be noted that the ABAG population forecasts for some of the East County areas may be too optimistic for the 20 year time span, e.g. the Brentwood Sphere of Influence area may not be developed to the extent of the ABAG projections until some time after the year 2005. Major infrastructure improvements required to support the future population (roadways, sewer and water service, schools) may act as a constraint to residential development and slow the phasing of growth in East County.

The central subregions of the County are expected to grow at a steady rate, adding some 58,000 new residents in the area stretching along I-680 and Highway 24 from Martinez south to San Ramon, a 15 percent increase over the 1985 population. Central County will grow at a five year rate of 4 percent to 6 percent until 1995, after which the rate will decline into the 2 percent to 3 percent range. The largest increase will occur within the San Ramon Sphere of Influence, where 16,000 persons will swell the town's population to over 41,000 by 2005. Danville is expected to add 11,200 new residents, and the Blackhawk-Alamo area will add 5,200.

Sphere Areas Concord and Martinez will each absorb approximately 7,500 new persons in their population, Walnut Creek will grow by 4,600, Clayton will add 3,300 residents, and Pleasant Hill will expand by 2,500 people. The Lamorinda area (Lafayette-Moraga-Orinda) will remain stable, with increases in Moraga offset by a population decline in Lafayette and Orinda.

TABLE III-9

ABAG POPULATION PROJECTIONS
(1000's)

Subregional Area ¹	1985	1990	1995	2000	2005	% Change 1985-2005
Antioch	50.9	55.3	65.2	78.9	91.1	79.9
Brentwood	7.3	11.8	16.1	23.7	29.5	304.1
Clayton	7.5	8.5	9.3	10.0	10.8	44.0
Concord	107.4	110.6	112.9	113.0	114.9	7.0
Danville	32.1	35.0	40.2	41.6	43.3	34.9
El Cerrito	29.0	29.0	28.3	27.5	27.6	-4.8
Hercules	9.7	13.0	16.5	18.4	19.2	97.9
Lafayette	22.6	22.5	22.4	22.1	22.0	-2.7
Martinez	35.3	37.2	38.7	40.3	42.4	20.1
Moraga	15.0	15.7	16.3	16.6	17.2	14.7
Orinda	17.3	17.2	16.8	16.6	16.7	-3.5
Pinole	24.6	25.1	25.8	25.6	25.9	5.3
Pittsburg	50.6	55.5	56.6	58.1	63.7	25.9
Pleasant Hill	33.8	35.5	36.4	36.1	36.3	7.4
Richmond	90.7	95.6	101.0	101.2	102.1	12.6
San Pablo	24.9	25.0	24.9	24.7	24.8	-0.4
San Ramon	25.5	33.6	36.9	38.9	41.4	62.4
Walnut Creek	75.2	77.5	79.1	79.1	79.8	6.1
Alamo-Blackhawk ²	13.2	15.2	16.7	17.5	18.4	39.4
Rodeo-Crockett ³	11.3	11.7	11.8	12.0	12.1	7.1
Rural East Contra Costa ⁴	16.5	22.3	29.5	34.9	40.8	147.3
Remainder of County	6.1	6.5	7.1	7.8	8.6	41.0
TOTAL: Contra Costa County	706.5	759.3	808.5	845.6	888.6	25.8

Source: ABAG, Projections '87

Notes:

¹Areas correspond to City's Sphere of Influence unless otherwise noted.²Subregional area is the Sphere of Influence of the San Ramon Water District.³Subregional area corresponds to the unincorporated communities within the EBMUD water service area.⁴Subregional area includes the unincorporated communities of Oakley, Sand Hill, Discovery Bay, and Bethel Island, as well as adjacent rural territory outside of Antioch's Sphere of Influence.

In West County, the older built-out cities are anticipated to grow by a modest amount over the next twenty years (Rodeo, Crockett, Pinole) or actually lose residents as their populations age (El Cerrito and San Pablo). New residential development in the North Richmond area and elsewhere in the Richmond Sphere, however, will boost that city's population by 11,400. Recent subdivision activity in the Hercules foothills should result in almost a 100 percent increase in the city's population by 2005, amounting to 10,000 new residents. Overall, West County is projected to sustain a five year growth rate of 5 percent until 1995, after which the population will grow very little.

IV. RESIDENTIAL CONSTRUCTION

Early Subdivision Activity in Contra Costa

For the last 50 years land for new housing to supply Contra Costa County's fast growing population has been met largely by subdividing large tracts of land for single family homes. Subdividing land for residential lots got underway to a limited degree in Contra Costa County in the late 1930's. This initial activity occurred mainly in the Central County area of Lafayette, Concord, and Pleasant Hill, and not, as one might expect, closer to the older established areas of Richmond, San Pablo, and El Cerrito or near the existing industrial cities of Antioch, Pittsburg, and West Pittsburg.

The catalyst for the new subdivisions in Central County was the completion the Caldecott Tunnel (then known as the Broadway Low-Level Tunnel) in December, 1937. The tunnel lent ready access by private autos to the center of the County from Oakland. There was immediately a demand for new housing since the existing housing stock in that part of Contra Costa was comprised mainly of farm dwellings, ill-equipped for suburban living.

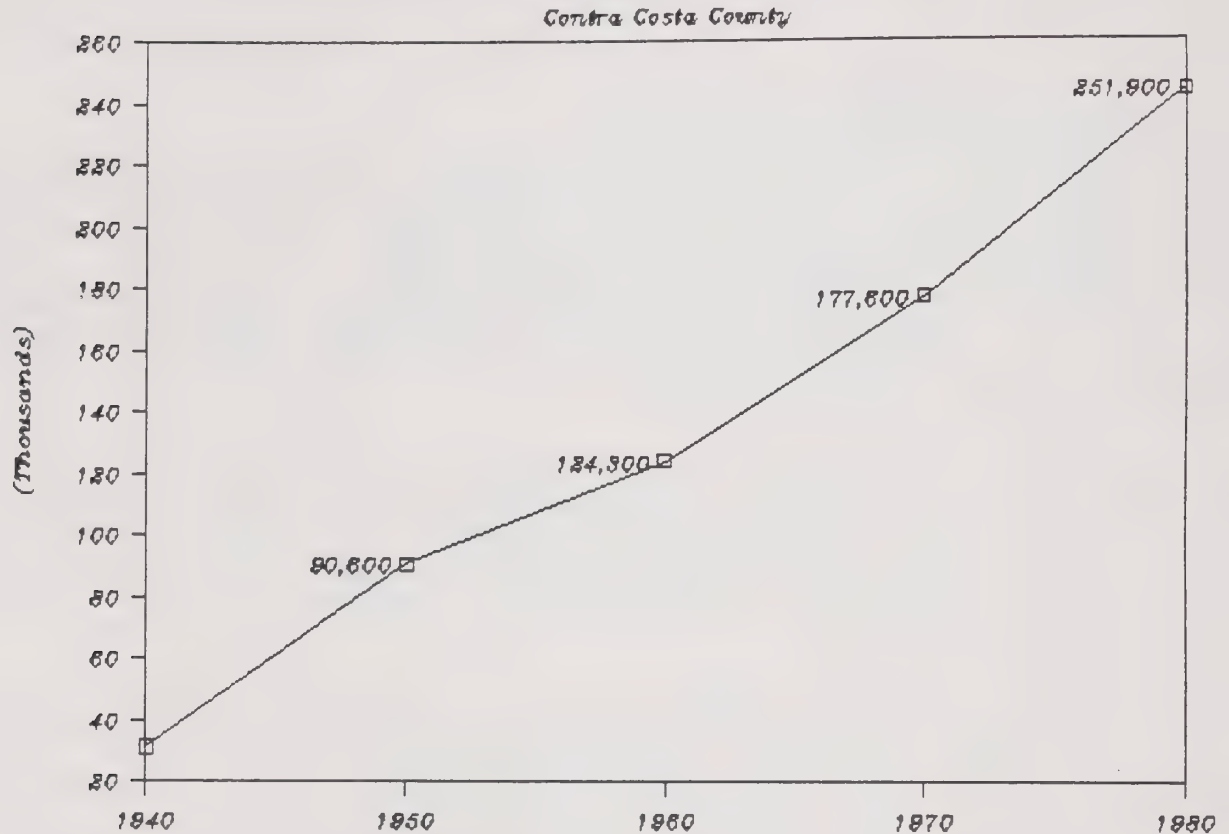
During the early years of the 1940's, subdivision activity continued in Central County, with the Orinda area being the most popular site for builders and buyers. Residential construction ebbed during the World War II years, but by 1946 most areas of the County experienced renewed subdivision applications. During the post-war years, the first residential subdivisions began to appear in the Danville area of the San Ramon Valley and scattered developments occurred in East County near Brentwood, Oakley, and Bethel Island.

The City of Martinez and the large unincorporated area known as Walden, between the towns of Concord and Walnut Creek, were excluded from the residential boom. Walden, rich in orchards, seems to have resisted major subdivision activity for the remainder of the 1940's as development pushed outward from the two cities on either side. What development occurred here resulted through the mechanism of minor subdivisions (four lots or less), which was an adjustment to the delicate balance between values of residential and agricultural land. Farmers in the Walden area at this time were able to survive by selling off small portions of their land for a limited number of new homes. In other areas of the County where major subdivision activity did not occur, the mechanism of minor subdivisions may have provided a similar alternative to large scale development.

From 1940 to 1950, the population of Contra Costa County increased by almost 200,000 and the housing stock tripled from 31,000 to over 90,000 units (see Figure IV-1). It was not a gradual increase, but fluctuated from year to year based on the peculiarities of war related employment and migration. Approximately half of the increase was due to the immigration of residents to Richmond, El Cerrito, and San Pablo. This population increase was not reflected in applications to subdivide, since much of land was already held in so-called "town-sized" lots. Additionally, a significant portion of housing for war time workers was provided in government structures.

FIGURE IV-1

Growth in Housing Units (1940-1980)



During the 1950's, almost 34,000 homes were built in Contra Costa County. Subdivision development pushed out from the northern fringes of Richmond, San Pablo, and El Cerrito toward El Sobrante and Pinole. An extension of subdivisions into previously unsuburbanized areas in Central County, such as Moraga, Lafayette, Diablo, and Clayton, also occurred during these years. The region of primary subdivision activity, however, continued to be in Concord, Walnut Creek, and Pleasant Hill. There were also a number of residential developments in the Vine Hill area in southern Martinez, areas fairly new to suburbanization. Central Pittsburg and Antioch continued to fill in with homes, though not nearly to the extent of Central County construction. Subdivision activity during the 1950's around Brentwood in East County was practically nil.

Kensington, El Sobrante, and the hills of El Cerrito witnessed a heavy influx of residential building during the second half of the 1950's. Pinole remained the northernmost location of subdivision development in West County, except for a limited amount of new housing which went in around Crockett. Central County continued to be the area of the most construction activity, with a concentration of new subdivisions built in Orinda, Moraga, and the Rheem Valley between 1957 and 1959. Residential land use finally won out over agriculture in the Walden area, and scattered major subdivision began to appear. The eastern cities of Antioch and Pittsburg continued to attract a steady but limited number of subdivisions each year.

Throughout the County, home building activity between 1960 and 1965 was greater than in any previous period. Most areas grew at a steady rate, with the exception of Lafayette. Before 1960, the extension of subdivisions down the San Ramon Valley from Walnut Creek reached only to Danville. After 1960, a scattering of new developments appeared in the Sycamore Valley southeast of Danville, within San Ramon proper, and in the upper Moraga Valley, areas which up until this time were unsuburbanized.

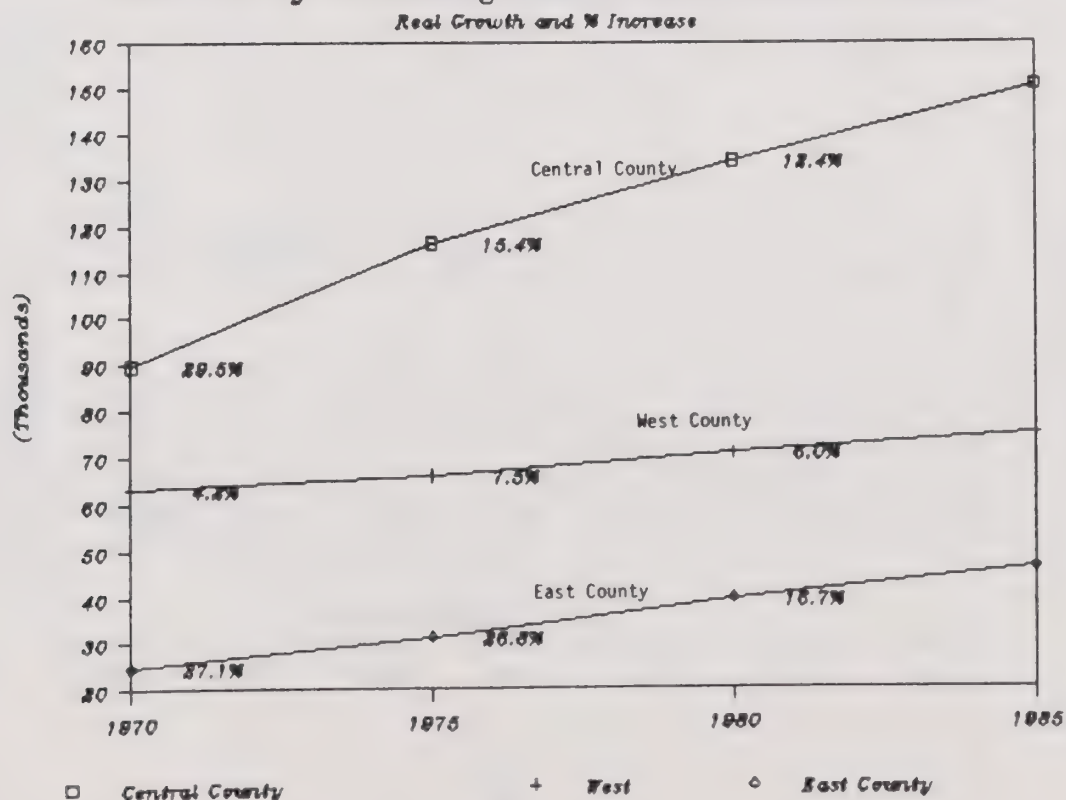
During the decade of the 1960's, over 53,000 new homes were built in Contra Costa County. The vast majority of this growth (40,000 homes) occurred in the central portion of the County. The City of Concord added over 15,000 new housing units, while Walnut Creek grew by 5,000 units. The remaining 20,000 new homes were constructed in the Lamorinda area (7,000 houses), in the Danville-Alamo area of the San Ramon Valley (3,900 homes) and other unincorporated communities.

In contrast, East County added less than 4,000 new housing units between 1960 and 1970. Construction of new homes continued in the hills around Kensington, El Sobrante, and El Cerrito during this period, resulting in an additional 10,000 units in West County.

Home building during the decade of the 1970's continued at a very rapid pace, resulting in almost 75,000 new homes in Contra Costa County, a phenomenal amount of construction by current standards. During the first half of the 1970's, residential construction slowed in West County, although the growth rate remained very strong in Central County, and in East County new construction accelerated (see Figure IV-2). The Cities of Antioch and Pittsburg registered 30 percent increases in their housing stock, totalling almost 5,000 new homes in each city. Even the small City of Brentwood added 450 new units during this period.

FIGURE IV-2

Growth of Housing Units in Contra Costa



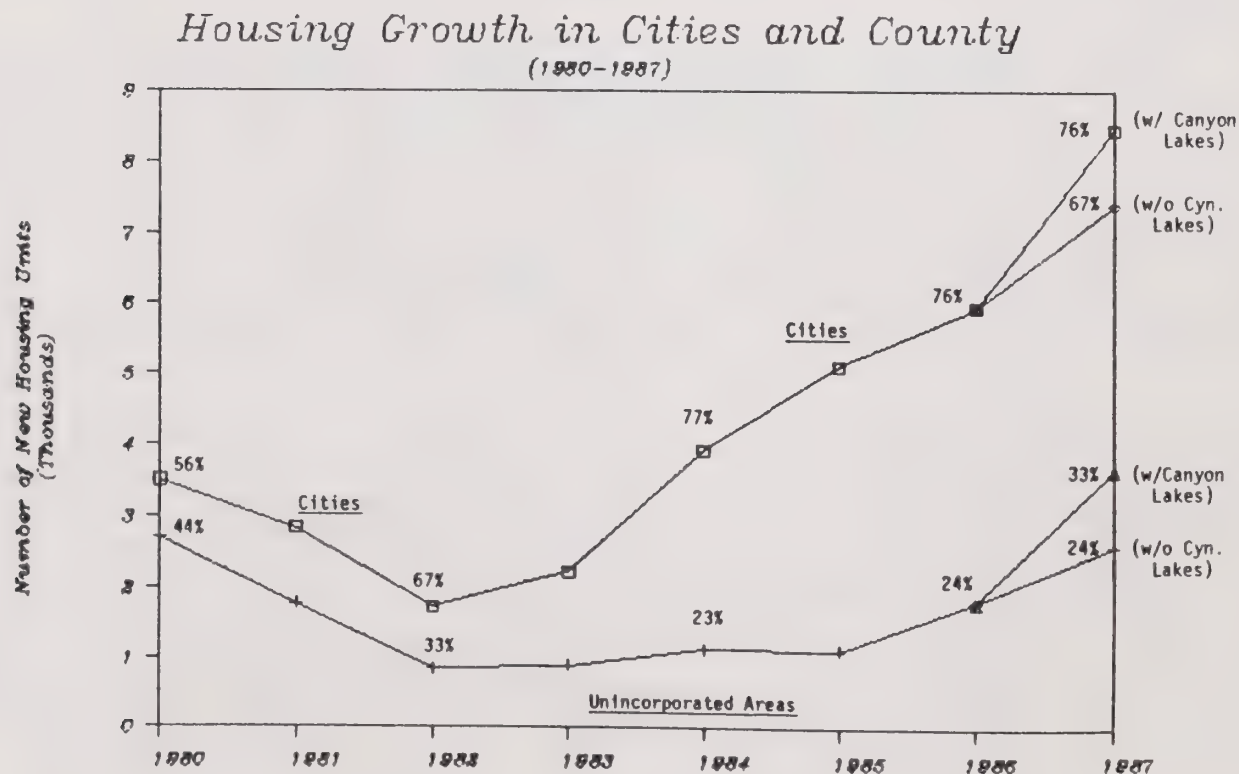
In Central County, 26,500 housing units were constructed between 1970 and 1975, comparable to the amount of building which occurred during the previous five year periods. The cities of Concord, Walnut Creek, and Pleasant Hill all experienced tremendous residential growth during the first half of the 1970's, resulting in increases of their respective housing stock of over 30 percent. Within Concord over 8,000 new homes were completed, while Walnut Creek and the San Ramon Valley unincorporated area each added 5,500 units.

Construction during the latter half of the 1970's added over 30,000 new dwelling units to the County's housing stock, translating into a five year growth rate of almost 14 percent. The majority of these new homes (18,000 units) were built in the Central County communities, although the greatest percentage increase in housing during this period occurred in the eastern part of the County (see Figure IV-2).

Residential Construction Between 1980 and 1987

Over the last decade as unincorporated land adjacent to cities has been annexed and developed, and new cities have incorporated, the County's role in approving and servicing new residential areas has shrunk dramatically. In 1980, approximately 44% of all housing completions occurred under County jurisdiction, with the remainder (56%) approved by the cities. The cities' portion of residential growth climbed to 67% of the total in 1982, and reached 77% in 1984, following the incorporations of Danville and San Ramon (see Figure IV-3).

FIGURE IV-3



Since 1984, the portion of growth occurring in the County versus the cities has remained steady at a ratio of about **three quarters of the new housing developed within the cities and one quarter built in the County**. Because of the confusion over how to code the most recent housing completions in the Canyon Lakes area of San Ramon (units which were approved and built in the County, but technically completed under City jurisdiction), data in Figure IV-3 for the year 1987 has been presented in two different ways. If the Canyon Lakes-Reflections units are counted in the city totals, the portion of incorporated development is 76% of all new housing. If the Canyon Lakes units are attributed to the County, the portion of new housing completions in the unincorporated areas rises from 24% of the annual total to 33%.

Growth in Contra Costa County has added **46,800 units of new housing since 1980**, for an average of 5,800 homes completed each year. But homebuilding during the 1980's has fluctuated from one year to the next, consistent with the national economic climate (see Table IV-1 and Figure IV-4).

The decade began on a relatively high note, as 6,240 units were finished in Contra Costa County in 1980. Residential construction began a nosedive during the next year, however, due to very high interest rates and a national recession. Housing completions reached their lowest point in 1982, when only 2,600 units were registered.

By the end of 1984, however, the local homebuilding industry had recovered, completing 5,100 new units. The following year saw almost 6,300 homes and apartments built in the County, an increase of 23%. In 1986, residential construction again jumped significantly, with completion of almost 8,000 units, representing a 24% gain. **During the last year, 1987, the rate of homebuilding was even stronger, registering almost 11,000 units completed, which translates into a 42% increase over the previous twelve month period.**

By examining the housing statistics for each jurisdiction in the County over the last seven years, it becomes apparent that the steady construction activity in North Central County during 1987 has been a consistent pattern for some time (see Table IV-1 and Figure IV-4). It has only been in the last two years (1986 and 1987) that the actual number of homes completed in all of the East County communities has surged past completions in North Central County.

The cities that have experienced the strongest development activity over the last eight years are **Antioch** (approximately 5,000 new units); **Concord** (4,100); **Pittsburg** (3,600); **Richmond** (3,600); **San Ramon** (3,500); and **Martinez** (3,100).

Other communities that have added a significant amount of new housing since 1980, at least 1,000 units, include **Pleasant Hill** (approximately 2,600 units); **Walnut Creek** (2,200 units); the **unincorporated areas of North Central County** (2,200); **Hercules** (2,200); unincorporated **Oakley** (2,100); **Danville** (1,800); unincorporated **Blackhawk** (1,500); **West Pittsburg** (1,600); **San Pablo** (1,100); the **unincorporated communities of West County, including El Sobrante** (1,100); and unincorporated **Discovery Bay** (1,000). These housing "hot spots" are illustrated on Figure IV-5.

FIGURE IV-4

HOUSING GROWTH IN CONTRA COSTA BY AREA (1980-1987)

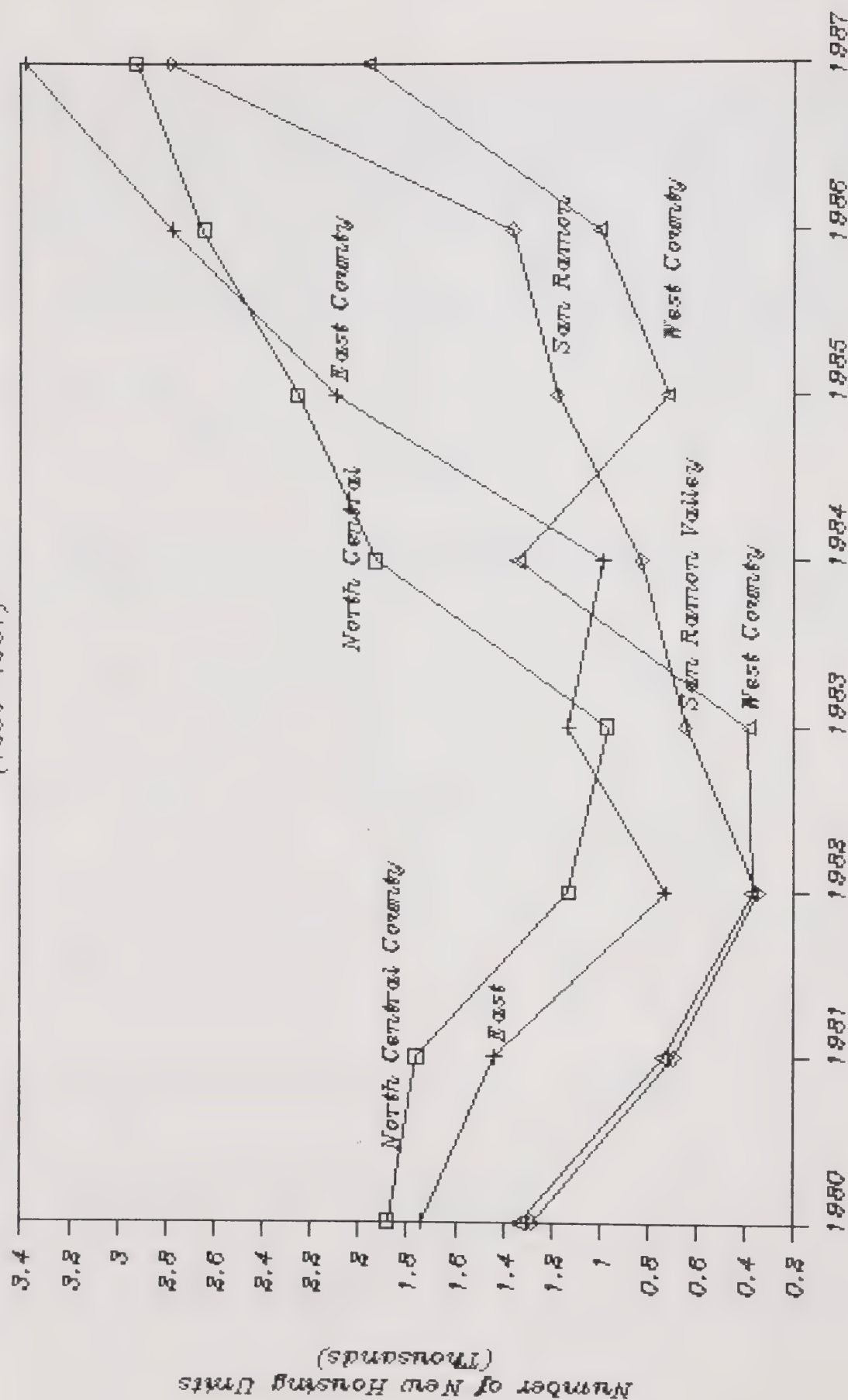


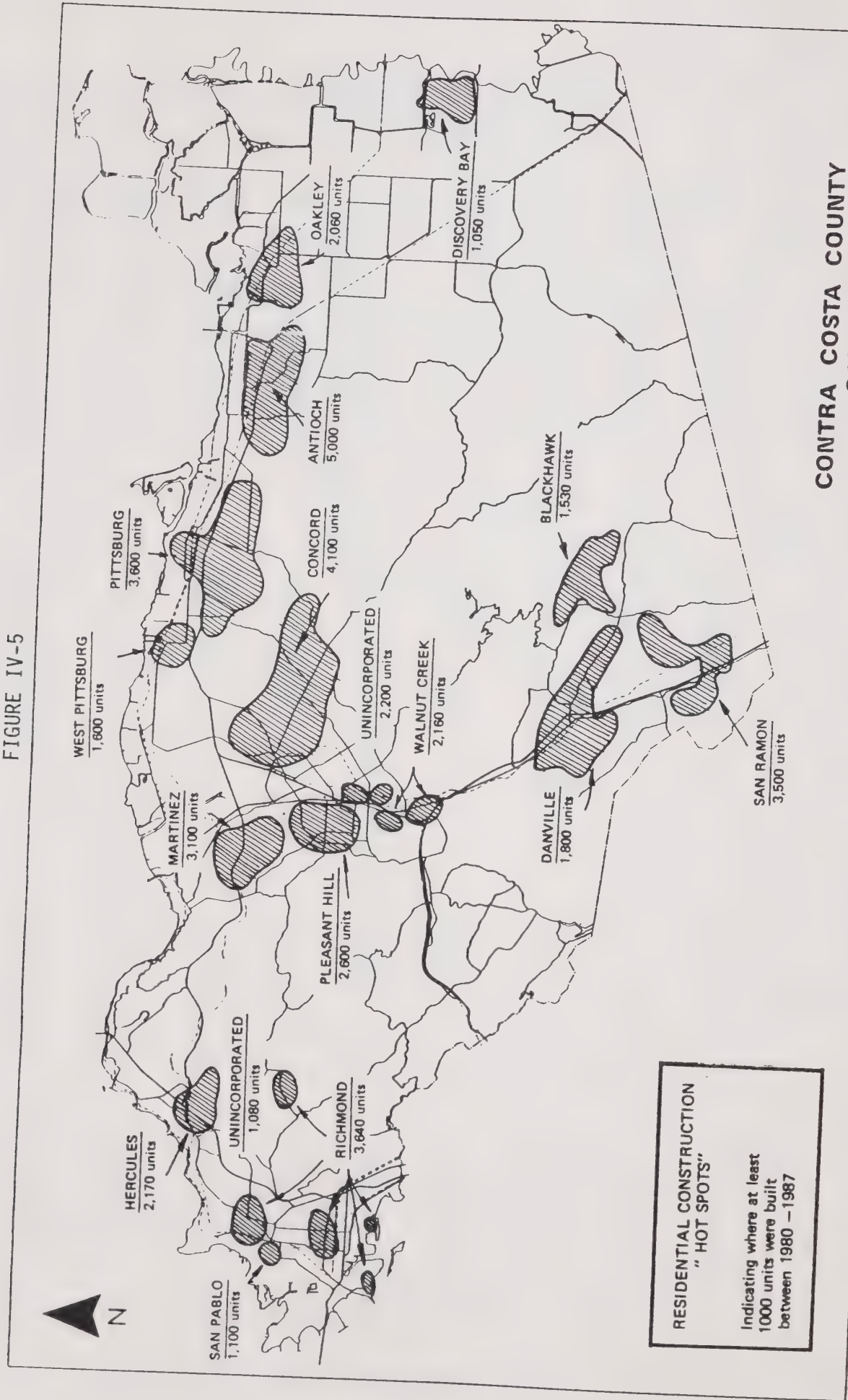
TABLE IV-1

ANNUAL GROWTH IN HOUSING UNITS
BY JURISDICTION IN CONTRA COSTA COUNTY (1)
(1980-1987)

	1980	1981	1982	1983	1984	1985	1986	1987	Total 1980-1987
	----	----	----	----	----	----	----	----	-----
EAST COUNTY									
Antioch	478	361	273	462	267	865	1,197	1,105	5,008
Brentwood	36	79	16	5	15	100	327	119	697
Pittsburg	443	529	246	308	196	596	534	781	3,633
W. Pittsburg (uninc)	188	223	20	75	94	137	304	583	1,624
Oakley (uninc.)	300	80	73	214	307	234	335	518	2,061
Disco Bay (uninc.)	187	139	92	44	112	154	62	258	1,048
Other unincorp.	111	27	12	23	(2)	15	16	17	219
Sub-total	1,743	1,438	732	1,131	989	2,101	2,775	3,381	14,290
NORTH CENTRAL COUNTY									
Martinez	240	360	199	239	1,020	371	210	481	3,120
Concord	450	272	370	280	314	841	788	766	4,081
Clayton	99	0	2	19	63	54	3	7	247
Pleasant Hill	343	292	210	135	67	311	514	724	2,596
Walnut Creek	233	331	96	85	210	385	591	233	2,164
Lafayette	85	47	31	13	27	25	27	65	320
Moraga	62	40	4	5	58	136	86	103	494
Orinda (2)	48	60	25	26	26	35	20	44	284
Unincorporated	322	360	196	171	147	100	409	502	2,207
Sub-total	1,882	1,762	1,133	973	1,932	2,258	2,648	2,925	15,513
SAN RAMON VALLEY									
Alamo (uninc.)	40	63	24	27	56	57	78	120	465
Danville (3)	425	310	125	63	250	155	124	361	1,813
San Ramon (4)	600	225	145	135	730	197	226	1,217	3,475
Blackhawk (uninc.)	110	110	80	120	307	268	266	268	1,529
Other uninc. (5)	159	31	3	44	3	43	308	4	595
Sub-total	1,334	739	377	389	1,346	720	1,002	1,970	7,877
WEST COUNTY									
El Cerrito	41	30	(1)	36	48	145	25	20	344
Richmond	449	216	146	211	237	279	665	1,434	3,637
San Pablo	249	222	31	133	81	114	11	257	1,098
Pinole	30	60	42	91	90	92	134	289	828
Hercules	275	3	70	152	273	452	478	471	2,174
Unincorp.	237	161	61	24	101	97	52	348	1,081
Sub-total	1,281	692	349	647	830	1,179	1,365	2,819	9,162
COUNTY TOTAL	6,240	4,631	2,591	3,140	5,097	6,258	7,790	11,095	46,842

Source: Contra Costa County Community Development Department

FIGURE IV-5



CONTRA COSTA COUNTY CALIFORNIA

Although the amount of new housing built in the North Central sub-area during the 1980's has been very high, it must be kept in mind that this is by far the most populous part of the County. Almost one half of the County's housing stock is located in the communities between Walnut Creek and Martinez along the north I-680 corridor and in Lamorinda (Lafayette-Moraga-Orinda). The housing growth measured in this area since 1980 has been significant, approximately 15,500 housing units, although the rate of growth has been relatively low, only a 13% increase between 1980 and the end of 1987.

In contrast, the growth in the San Ramon Valley since 1980 has been a relatively small in comparison to the other three sub-areas of the County, 7,900 units of new housing, yet the rate of growth has been an impressive 35.9% over the eight year period (see Table IV-2). East County has grown by 14,300 units, which translates into a 28.4% increase since the last census in 1980. In West County 9,100 housing units were finished, equal to a 11.8% growth rate, which was the slowest growing part of the County. Overall, Contra Costa County increased its housing stock by 18.6% during 1980 through 1987.

TABLE IV-2
RATES OF HOUSING GROWTH IN
CONTRA COSTA COUNTY BY SUB-AREA

	Housing Units (1980)	Growth in Housing (1980-1987)	Rate of Growth (% increase)
East County	39,385	14,290	28.4%
North Central	119,149	15,513	13.0
San Ramon Valley	21,956	7,877	35.9
West County	71,428	9,162	11.8
	-----	-----	----
TOTAL: (or average)	251,918	46,842	18.6

Source: U.S. Department of Commerce, 1980 Census,
Tape STF 3; Contra Costa County Community
Development Department

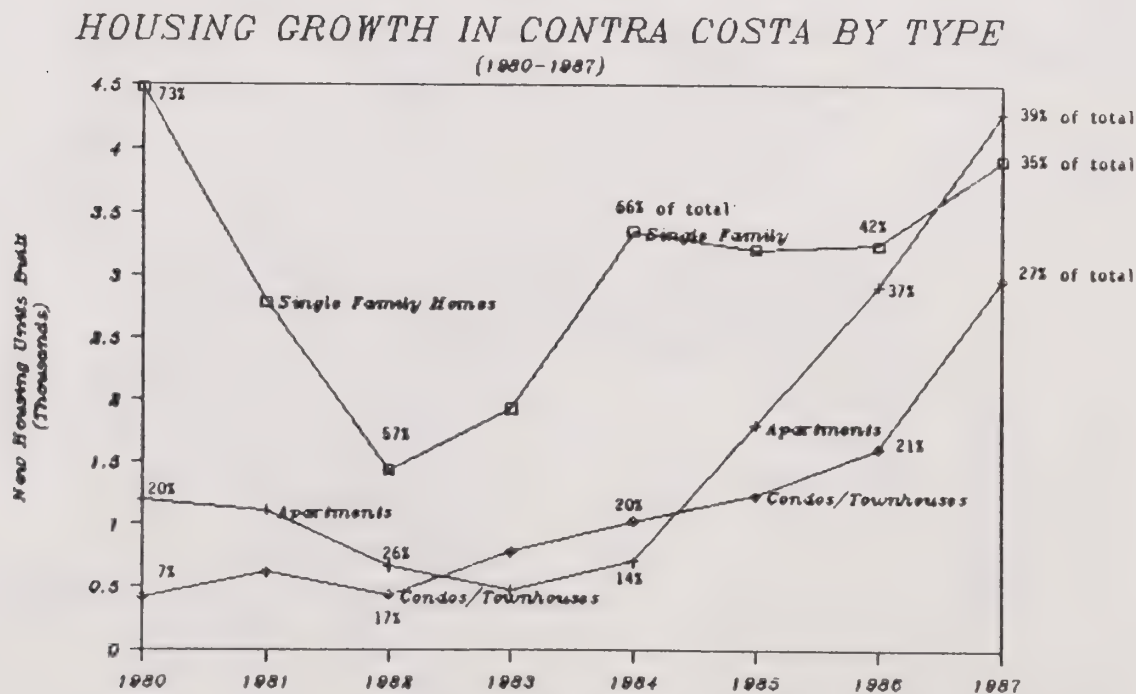
In terms of the type of housing that has been constructed in Contra Costa County since 1980, Figure IV-6 illustrates the change over time of the mix between traditional single family homes on an individual lot, attached single family units (condominiums or townhouses), and multiple family apartment units.

In 1980, about three quarters (73%) of the new housing built in the County consisted of single family homes, 7% was condos or townhouses, and 20% was apartment units. Over the last eight years, the mix of new housing has shifted significantly away from homes on individual lots toward attached housing (either condos or apartments). During the construction slowdown of 1982, the percentage of new housing that was detached homes dropped from three quarters of the total to about 57%.

However, the portion of single family homes rose sharply in 1984, registering about two thirds of all new housing. That year appears to have been unusual, since the trend toward more apartment and condominium construction has dominated during the mid-1980's. During the 1986 construction year, for the first time less than one half (42%) of the housing completed in the County was detached family homes. Much of the shift has been away from single family homes on individual lots toward the construction of multiple family (apartment) units, in part spurred on by favorable tax laws and other financing mechanisms, and the downturn in office construction.

During recent years, the portion of new housing that is condominiums has remained relatively constant (20% to 27%), while apartment construction has soured, accounting for only 14% of all new units in 1984, but growing rapidly to account for 37% and 39% of housing completions in 1986 and 1987. For the first time in 1987, new apartment construction has outpaced single family homebuilding. Detached single family homes represented only 35% of all new construction last year, while apartments made up 39% and condominiums accounted for 27%.

FIGURE IV-6



While the proportion of new housing that is on separate single family lots has declined, the number of new homes that are being built is still increasing. Over 3,900 detached homes were added in the County in 1987, up from 3,250 built in 1986. Rental apartment construction grew substantially in the last year, from about 2,900 units in 1986 to almost 4,300 units in 1987. The number of new townhouses and condominiums also grew, from 1,600 units completed in 1986 to almost 3,000 units finished during 1987.

Although rental apartment building has flourished during the last two years, construction is expected to weaken in the coming years due to changes in Federal tax laws.

Recent Residential Construction by City (1987)

During the year ending December 31, 1987, 11,095 housing units were completed throughout Contra Costa County, an increase of 42% over the previous year. In turn, the approximately 8,000 housing units that were completed in the County during the 1986 calendar year was 24% higher than during 1985.

During 1986, the year's strongest housing growth was centered in either the traditional growth areas of the North Central cities (Concord, Pleasant Hill, and Walnut Creek) or in East Contra Costa (Antioch, Pittsburg, Brentwood, and Oakley). However, during 1987 residential development was strong in all parts of the County. Almost one third of the new homes built last year (3,381 units) was in East County, followed by 2,925 units completed in North Central County communities, 2,819 units built in West County, and 1,970 units finished in the San Ramon Valley (see Table IV-3).

Table IV-3 breaks down housing completion data for each jurisdiction by type of unit, categorized as single family homes (either detached homes on separate lots, or attached condominiums or townhouses) and multiple family (apartment) units. It should be noted that the data in Table IV-3 measure housing unit completions, i.e. a **final** building permit, not the issuance of an initial building permit to construct. Thus, the numbers are a very accurate representation of exactly how many units were actually finished and ready for occupancy.

Recent housing growth in each of the 18 cities and several of the unincorporated communities is analyzed by each sub-region of the County in the following pages.

TABLE IV-3

HOUSING GROWTH BY AREA
AND TYPE IN
CONTRA COSTA COUNTY
(1987)

	Single Family Homes (1)	Multiple Family Units	Total
	-----	-----	-----
EAST COUNTY			
Antioch	931	174	1,105
Brentwood	105	14	119
Pittsburg	283	498	781
West Pittsburg (uninc.)	359	224	583
Oakley (uninc.)	518	0	518
Disco Bay (uninc.)	258	0	258
Other unincorp.	17	0	17
Sub-total	2,471	910	3,381
NORTH CENTRAL COUNTY			
Martinez	149	332	481
Concord	304	462	766
Clayton	7	0	7
Pleasant Hill	306	418	724
Walnut Creek	131	102	233
Lafayette	52	13	65
Moraga	103	0	103
Orinda	44	0	44
Unincorporated	144	358	502
Sub-total	1,240	1,685	2,925
SAN RAMON VALLEY			
Alamo (uninc.)	120	0	120
Danville	361	0	361
San Ramon (2)	504	713	1,217
Blackhawk (uninc.)	270	0	270
Other unincorp.	2	0	2
Sub-total	1,257	713	1,970
WEST COUNTY			
El Cerrito	5	15	20
Richmond	1,273	161	1,434
San Pablo	15	242	257
Pinole	191	98	289
Hercules	310	161	471
Unincorporated	20	328	348
Sub-total	1,814	1,005	2,819
	----	----	----
COUNTY TOTAL	6,782	4,313	11,095

Source: Contra Costa County Community Development Department

Notes to the preceeding table:

- (1) Condominiums and townhouse units are included in the Single Family Homes category.
- (2) Most of the totals for San Ramon (381 SF units and 681 MF units) include two projects, Canyon Lakes and the Reflections, that were approved in the County but annexed into the City upon completion. The City of San Ramon reported 123 SF and 32 MF units completed during 1987.

East County

In Contra Costa County, **Antioch** has been by far the most active location for new home construction. In 1986, the city registered 1,200 units completed, or a building pace of 100 new homes completed each month. During 1987, residential construction in the City nearly matched the same high rate for a second year in a row, with 1,105 units built.

New housing built in the city was primarily single family homes, a change from previous years when numerous apartment complexes had been opened for occupancy. Much of the building has occurred in the rapidly growing Southeast Antioch area along Hillcrest Avenue. Several thousand additional units are currently under construction in this area, and a total buildout of approximately 15,000 homes has been planned in the area. The city has further plans to annex some 2,600 acres of agricultural land in the Lone Tree Valley to accommodate additional housing growth.

In neighboring **Pittsburg**, a total of 498 apartment units were finished during the last year, accompanied by the addition of 283 single family homes or condominiums. Housing construction in 1987 increased significantly over levels of the previous year, when 534 units were completed. Most of the new units are located in the foothills south of Route 4.

The small city of **Brentwood** experienced a slower rate of growth during the last year compared to the previous year, when over 300 homes had been completed. During 1987 only 105 single family homes and 14 apartment units were built. Future residential growth rates will be largely dependent on the ability of the city to secure a permanent water supply.

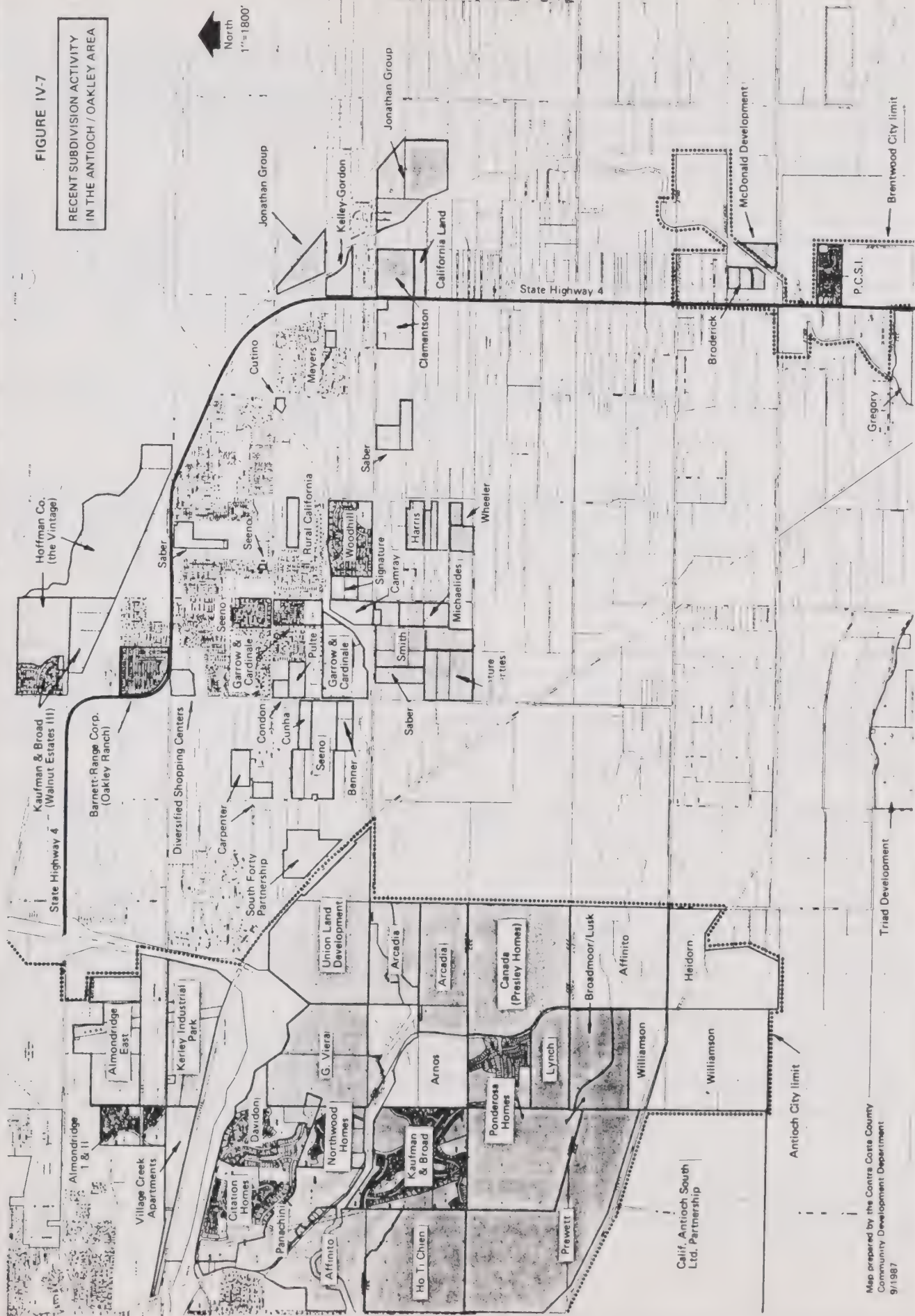
North of Brentwood in the unincorporated community of **Oakley**, residential construction has jumped sharply. A total of 518 single family homes were completed during 1987, compared to a range of 200 to 300 units finished in previous years. Much of the growth is centered in the large Gateway project (Garrow & Cardinale), in a new Kaufman & Broad subdivision near Big Break, and other subdivisions being built by the Hofmann Company, Seeno, Woodhill Development, and others.

An updated general plan to allow several thousand units of additional housing to be built in the area south of Laurel Road was adopted in early 1987, however, a successful law suit over the adequacy of the environmental documentation may delay the beginning of construction until 1988 or later. Subdivisions that have been recently approved or are pending in the growing Oakley and Southeast Antioch areas are mapped in Figure IV-7.

In **West Pittsburg**, the other large unincorporated community in East County, housing growth was also up significantly in the last year. Residential construction amounted to 583 new units completed during 1987, consisting of 359 single family homes (or condominiums) and 224 apartments. New growth occurred in several notable projects, including Kaufman & Broad's California Landing subdivision, Presley Company's Amber Cove, the Lynbrook project (Crocker Homes) and Woodhill's Westwood Village. Housing construction is expected to slow in the coming years, as little vacant land remains for new subdivisions.

FIGURE IV-7

RECENT SUBDIVISION ACTIVITY
IN THE ANTIOCH / OAKLEY AREA



Map prepared by the Contra Costa County
Community Development Department
9/1987

A third unincorporated community in East County, **Discovery Bay**, also registered strong growth during 1987, with 258 homes finished by either custom homebuilders or the master builder of the project, the Hofmann Company. The planned community of some 2,750 waterfront homes near Byron is approximately two thirds complete.

North Central County

The North Central County area includes the five northern cities along I-680, from Martinez to Walnut Creek, as well as Lamorinda (Lafayette, Moraga, and Orinda). This part of the County has historically been a high growth area since the 1950's. Most of the cities are now reaching a built out environment, as the last remaining vacant areas are being developed. In addition, the downtown business districts in some of the cities are being redeveloped with multiple family housing.

The North Central cities of Martinez, Concord, Walnut Creek, and Pleasant Hill added approximately 2,700 units of housing last year, compared to 212 units built in Lamorinda. The growth during 1987 was 10% higher than during

1986, when over 2,600 units were completed. The total of 2,925 units built in North Central Contra Costa last year represents the strongest growth to have occurred in that section of the County since the boom years of the 1960's. However, in contrast to earlier decades, a much higher portion of the new development is in multi-family apartments (1,685 units built in 1987) rather than in conventional single family homes (1,240 units).

Concord, the largest city in the County, experienced the greatest residential growth in the North central region during the last year. Over 300 single family homes were completed in outlying subdivisions on Pine Hollow and Ygnacio Valley Roads and elsewhere. An impressive amount of multiple family housing, 462 units, was also built, most of which consisted of several large apartment complexes built along Clayton Road.

Following Concord, the largest amount of new construction was registered in Pleasant Hill, in the unincorporated Pleasant Hill BART station area, and in Martinez. The City of **Pleasant Hill** added 724 housing units, with several hundred single family homes finished in subdivisions on the hilly northwest side of the city and 418 new apartments units constructed in the large Ellinwood mixed use project. Homebuilding activity in Pleasant Hill is expected to slow in the coming years, due to the rapidly disappearing supply of vacant land which is available for development, as well as slow-growth initiatives adopted by the voters.

Over 500 units of housing was completed during 1987 in the unincorporated areas within North Central County. Much of the housing finished under County jurisdiction, 338 units, was located at the **Pleasant Hill BART station** and on nearby Oak Road, and consisted of condominiums and apartments designed for nearby office workers.

The City of **Martínez** continued its trend of steady growth in the John Muir Parkway area just north of Route 4, and in the neighborhoods south of the freeway. The city added 332 apartment units and about 65 homes north of Route 4, with 85 single family homes south of the highway. More development is anticipated in the John Muir Parkway area under a specific plan adopted by the city, although much of the remaining housing growth is expected to be in single family homes.

In **Walnut Creek**, residential construction has slowed significantly, as the impacts of a voter-adopted slow growth initiative are being felt. During 1987 about 100 units of apartments were completed in the Rossmoor area and along Oak Road. New single family units totalled 131 and included the Main Chance town-houses north of the downtown.

In tiny **Clayton**, almost no development occurred during 1987, although in the last year the city approved final plans for the 1,400 unit Oakhurst Country Club development by Presley Homes. Construction of this project, to begin in 1988, will eventually double the size of the city.

In the older **Lamorinda** area, a modest amount of development was recorded, 199 single family homes and 13 apartments. Approximately one half of the development was in Moraga, where several subdivisions are under construction. This portion of the County is effectively built out, except for one isolated pocket of vacant land that will be developed in the near future, the Gateway Valley in Orinda.

San Ramon Valley

The **San Ramon Valley** has a reputation as one of the most rapidly growing areas in the Bay Area, although the actual number of homes that have been completed there over the last several years has been consistently lower than in the other three sections of the County. The rate of growth in the Valley has been much greater than the other areas, however, because the base of existing housing is smaller. In 1987, growth in the Valley escalated to almost 2,000 units, compared to about 1,000 units built during 1986. Much of the recent growth is due to construction of subdivisions in the huge Canyon Lakes project, as well as another nearby mixed use project which includes a large apartment complex, the Reflections.

Canyon Lakes, a 3,700 unit planned development, is being built in the unincorporated area east of San Ramon by several different companies. The project consists of single family, as well as multiple family "villages" clustered around a series of man-made lakes. As phases of the individual subdivisions or apartment complexes are completed, the units are automatically annexed into the City of San Ramon, under the terms of a tax-sharing agreement worked out with the County. A similar arrangement affects the nearby Reflections apartment project.

Thus, the housing unit figures attributed to the City of San Ramon in Table IV-3 include a substantial number of units that were originally approved and built under County jurisdiction, but have been annexed by the city.

Growth in Canyon Lakes and nearby projects totalled 1,062 units during 1987, split between 381 single family homes or condominium units, and 681 apartments. Completed housing projects reported by the City of **San Ramon** added 123 new single family homes and 32 apartment units.

In the Town of **Danville**, 361 homes were completed, primarily located in the large Sycamore Valley area. Hundreds of additional units have been given preliminary or final approval, so strong growth is expected during the coming years. In addition, two other large residential projects in the Tassajara area, consisting of approximately 1,000 units, have recently been approved and annexed into the town. Three more large subdivisions along Camino Tassajara Road have been approved or are in the process of receiving approval from the County. These developments are expected to be under construction during the late 1980's and 1990's. These projects are mapped in Figure IV-8.

At **Blackhawk**, the planned community of luxury homes east of Danville in the unincorporated area, custom homebuilding has continued at a steady pace. The project added 268 new homes in 1987. The final phase of the 2,300 unit community is expected to be completed during the next two years. In unincorporated **Alamo**, a moderate amount of new construction (120 units) occurred in 1987.

West County

In West Contra Costa County, housing growth during 1987 doubled over the previous year. Over 2,800 new units were completed in 1987 compared to 1,365 finished in 1986. A substantial portion of the growth was due to condominium construction in the City of Richmond, although steady growth has also continued in Hercules, El Sobrante, Pinole, and San Pablo.

Richmond experienced the greatest amount of housing growth of any city during the last year. The city added an incredible a total of 1,273 new single family units (1,070 were attached condominiums), as well as 161 apartments, representing more growth in one year than even Antioch has sustained recently. Growth in Richmond has been concentrated primarily around the Hilltop regional shopping mall. The large projects which were active in 1987 included the Hilltop Village condominiums and Hilltop Bayview apartments. The Carriage Hills subdivision by Dame Construction along Castro Ranch Road near El Sobrante also added 134 single family homes.

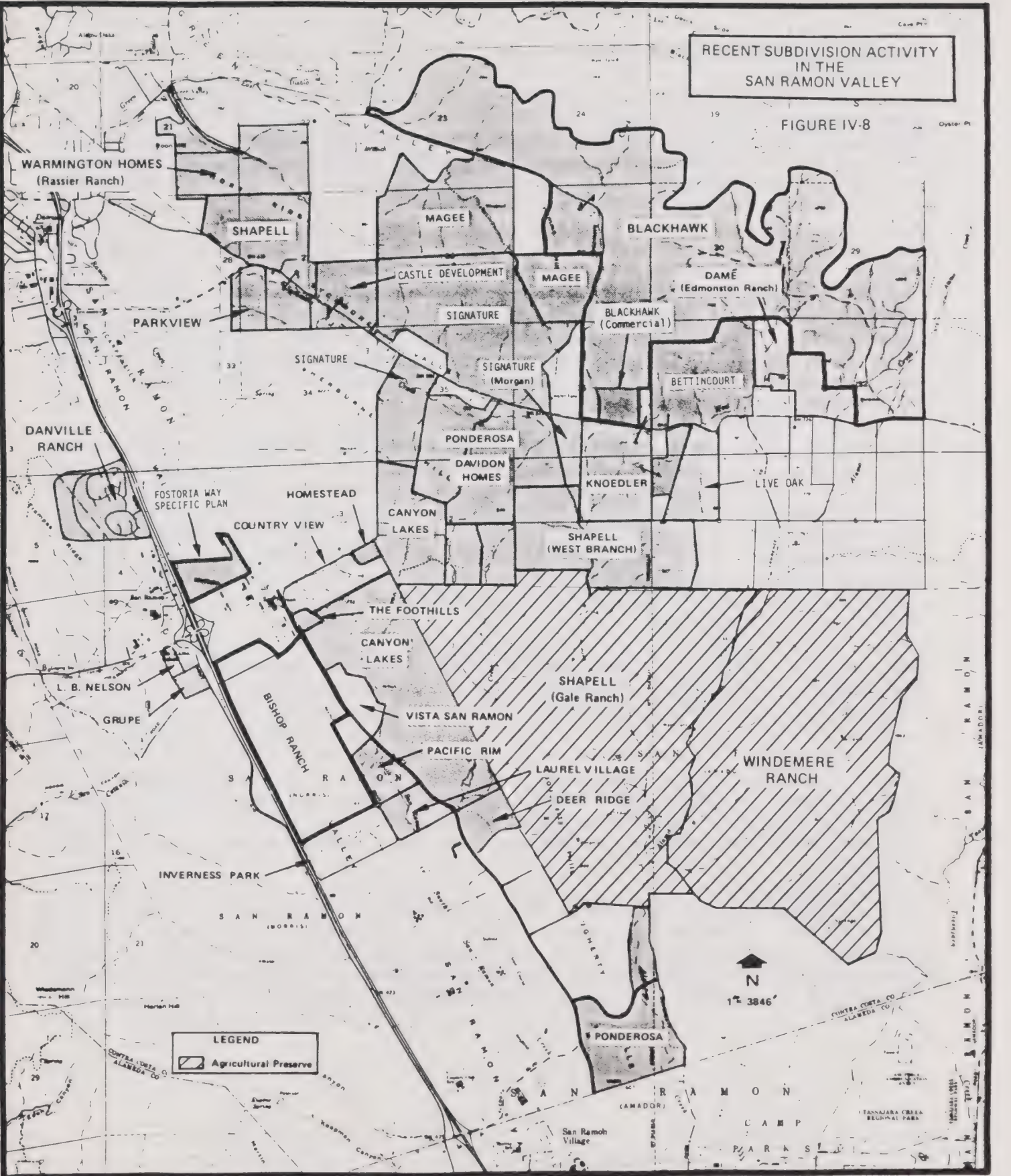
Hercules, the former company town of a dynamite manufacturer, has consistently been one of the fastest growing cities in the State. In 1975, the city contained only 51 residents; the city's population is now estimated at about 13,000. During 1987 the city added 310 single family homes and 161 apartment units. A similar amount of annual growth is expected to continue through the 1990's.

The unincorporated area of West County saw a surprising surge of growth during the last year, consisting of 328 units of apartments and 20 homes. Almost all of the apartment construction (296 units) was completed in one project, Hilltop Commons (Nyland Construction), on San Pablo Avenue near Tara Hills, between the cities of Richmond and Pinole. A moderate amount of housing (22 units) was built in **El Sobrante**.

Growth in **Pinole** doubled over the previous year, adding 191 homes and 98 apartments. A significant amount of new housing was also added in the City of **San Pablo**, primarily in the form of 242 apartments completed.

RECENT SUBDIVISION ACTIVITY
IN THE
SAN RAMON VALLEY

FIGURE IV-8



Changes in Subdivision Characteristics

Over the last two decades, the types and densities of major subdivisions that have been approved in the unincorporated portions of Contra Costa County have undergone some distinct changes. Projects that are approved under the State Subdivision Map Act include new home construction that requires the division of land into more than four lots, or the subdivision of new or existing dwelling units into the condominium form of ownership.

It should be noted that subdivision applications are given preliminary approval at the Planning Commission (approval of a tentative map). Under County regulations, the developer then has up to four years after the tentative map approval to file a final subdivision map with accompanying improvement plans with the Recorders Office. Consequently, tentative maps approved during any given year may not be acted upon for several years by the applicant, and many maps expire because the developer cannot complete financial or other arrangements to proceed with the project.

An average of 25 to 40 major subdivisions have been approved in the unincorporated areas each year since 1980, ranging in size from five lots or condominiums to several thousand units. Perhaps two thirds of the originally approved subdivisions units are actually constructed. In 1980, approximately 500 units of approved subdivisions were accounted for by condominium conversions of existing rental apartment complexes. Condo conversion subdivisions have not occurred during recent years, however, due to changes in the housing market and the adoption of County regulations which apply more stringent procedures to conversion applications.

The number of lots and condominiums and the acreage of new subdivisions has varied widely in recent years. Over 2,600 units were approved by the County in 1980, with almost one half of these lots located in the large Discovery Bay planned community near Byron. In 1981 and 1982, only 1,100 to 1,200 units were approved, reflecting the downturn in the national economy and the prevailing high interest rates. Two other very large subdivisions in the Sycamore Valley area in Danville (the old Broadmoor Ranch property and the Shapell project), amounting to some 1,500 units, began processing in the County in 1981 but were referred to the newly incorporated Danville city government, which approved them in 1985.

In 1983, the huge Canyon Lakes project proposed by the Blackhawk Corporation in the San Ramon Valley was approved. Canyon Lakes consists of 1,100 acres with 20 different neighborhoods, 3,090 mixed single family and condominium units. In 1983, the Hofmann Company also received approval to build over one thousand single family homes in Oakley (the Vintage subdivision).

During 1984, the Hofmann Company again subdivided about 300 acres in Discovery Bay into over 1,700 home and townhouse units for future residential construction. Also that year, a Kaufman and Broad subdivision of 244 single family lots was approved in Oakley, as was the first phase of the large 211 home Gateway subdivision by Garrow & Cardinale in Oakley. In West Pittsburg, the former Mota Ranch was subdivided into 174 single family and 128 townhouse units. Also that year, eleven condominium subdivisions were approved, including two projects in unincorporated Walnut Creek by Tam Investments (144 units), another 81 unit project by PermaBilt also in Walnut Creek, a 68 unit project in West Pittsburg, and two more in El Sobrante.

In early 1985, Shapell Industries received approval to subdivide 91 acres in the San Ramon Valley for over 800 lots and condominium units. This latter project, Shapell's New Castle homes and Lincoln Property's Country Brook multiple family complex, is now nearing completion. Also in 1985, several medium to large subdivisions were approved in the Oakley area, the largest of which was the 136 unit Oakley Ranch, by Venture Properties. Attached unit subdivisions (condominiums or townhouses) approved that year included a Desco project of 92 units in the unincorporated Saranap area of Walnut Creek and a Frumenti project of 58 condos in West Pittsburg.

During 1986, two of the largest subdivisions to be filed were Dame Construction's Shadow Creek subdivision near Blackhawk (470 single family homes) and Shapell's West Branch project, also in the Tassajara area (334 homes and an equal number of condominiums). Three other large subdivisions proposed in Tassajara (Morgan/Signature Properties, Live Oak (Vista Tassajara), and Knoedler's Tassajara Ranch) have recently been annexed into the Town of Danville. Other large subdivision applications filed in 1986 include the 350 unit Treat Commons condominium complex near the Pleasant Hill BART station; the 274 home Stonegate project on the former Bogue Ranch property in Alamo; a 236 unit townhouse project proposed on Bethel Island; and several medium sized subdivisions in the Oakley area.

In the most recent period of 1987-1988, the most active area in terms of subdivision applications has been Oakley. Since 1987, over a dozen individual applications for large subdivisions have been received, totalling almost 1,300 homes. Several of the subdivisions were approved by the County in 1987. However, due to a successful lawsuit filed against the Environmental Impact Report associated with the updated Oakley General Plan, most of the these approvals have been nullified by court order. A revised EIR is now being prepared.

Other large subdivisions that were approved under County jurisdiction during 1987 and the first half of 1988 include a moderate income project in the Tara Hills area near Pinole (112 homes and 106 condos) and three condominium projects (a total of 276 units) in the Walnut Creek area.

As land and building costs have escalated, the market for specific types of housing units in Contra Costa County has changed, from an emphasis on primarily large single family lots during the 1950's and 1960's to a mixture of moderate sized lots, "zero lot line" homes on very small lots, rental apartments and more attached living situations (townhouses and condominiums). ("Zero lot line" homes are single family detached houses with no sideyard on one side of the lot.) As noted in a previous section of this chapter, 1986 represented the first year in the history of Contra Costa County that less than 50% of all new residential construction was traditional single family homes.

Table IV-4 and Figure IV-9 indicate the changes that have occurred in the average density for subdivisions approved during the period 1980 to mid-1988. The average number of housing units (lots or condominiums) per gross acre of approved subdivisions has varied widely from year to year. In 1970, the overall density of subdivisions (attached and detached units) approved in the unincorporated areas of the County was approximately 2.5 units per acre. By 1980, the average density of all approved subdivisions had actually declined to about 1.6 units per gross acre.

Table IV-4 and the accompanying graph indicate that in 1980 the average density of all single family subdivisions that were approved was a low 1.3 lots per acre, while the density of condominium projects was over 15 units per acre. During the following year, however, the average densities of the two types of housing dipped significantly and in 1982 average densities again rose to about 2.8 homes and 13.7 condominium units per acre, respectively.

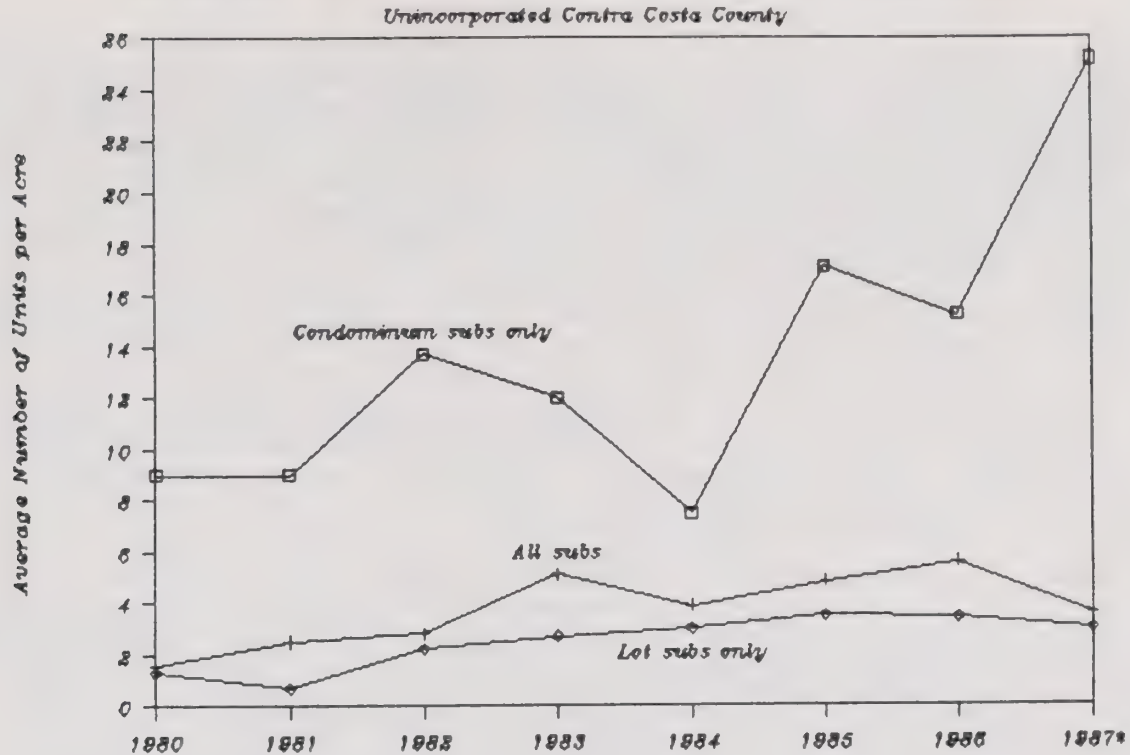
TABLE IV-4
AVERAGE DENSITY OF APPROVED SUBDIVISIONS
IN CONTRA COSTA COUNTY
UNINCORPORATED AREAS
(1980-1987)

	Average Gross Density (units/acre)		
	<u>Lot Subs Only</u>	<u>Condo Subs Only</u>	<u>All Subs</u>
1980 ¹	1.3	9.0	1.6
1981 ¹	0.7	9.0	2.5
1982 ¹	2.2	13.7	2.8
1983 ¹	2.7	12.0	5.1
1984 ¹	3.0	7.5	3.9
1985 ²	3.5	17.1	4.8
1986 ²	3.4	15.2	5.6
1987 ³	3.0	25.2	3.6

Source: Contra Costa County Community Development
Department subdivision files

- Notes: (1) Densities do not include several very large subdivisions approved in rural areas.
(2) Density does not include two large subdivisions in Bethel Island and Discovery Bay.
(3) Excludes one very large subdivision in Morgan Territory. Data is for the first half of the year only.

Change in Average Subdivision Densities



Since the early 1980's average densities have continued to fluctuate from year to year, depending on the specific characteristics of the large subdivisions that are filed and approved. In general, it appears that subdivision densities are remaining higher than they were in the 1970's, in part because there has been greater market acceptance of medium and high density housing units during the 1980's. Over the last seven years, several large condominium projects in the San Ramon Valley and elsewhere in the County have been approved and constructed at densities of 15 to 20 units per gross acre. Rental apartment and condominium construction within some of the more dense urban settings (such as the Pleasant Hill BART station area) have reached even higher densities, closer to 30 and 35 units per acre. In addition, several subdivisions of zero lot line homes at a density of 6 to 8 houses per gross acre have been constructed and sold in the Oakley and San Ramon Valley areas. Even the exclusive Blackhawk development of luxury homes consists of single family lots of very modest size. While one half to one acre lots were the standard in many of the suburbs in the County during the growth decades of the 1950's and 1960's, most new home buyers must now settle for houses on lots between 6,000 to 8,000 square feet, or about one sixth of an acre.

Although there has been greater market acceptance of medium and high density housing units during the 1980's, the average density of the subdivisions which have been approved by the County has not increased in a consistent manner. Part of the reason that the average number of lots per gross acre does not show a clear trend is because of the difficult topography of some recently approved projects. Most of the flat, easily developed land in the County, with the exception of the Oakley, Byron, and Brentwood areas, has already been subdivided and urbanized. New subdivision applications are increasingly being filed for less easily developed terrain, such as the rugged foothills of the unincorporated portion of the County. Consequently, the number of units per acre has decreased in many residential projects, as a larger portion of the subdivided parcel is devoted to open space.

In order to calculate a more accurate and representative average density for each year, the data in Table IV-4 has been somewhat modified for some years to exclude subdivisions of very large parcels into a relatively small number of lots. These rural subdivisions are not representative of the normal suburban pattern of home construction and, if they were included in the annual totals, the average subdivision density for some years would be biased much lower.

The overall average subdivision densities for the years since 1980, with the exclusion of the handful of approvals that were not considered to be representative, show a general upward trend. From 1.6 units per acre in 1980, to 2.5 units in 1981 and 2.8 units in 1982, the density of all approved subdivisions shot up to over 5 units per acre in 1983. The increase was directly related to the approval of a very large number of condominium units (almost 2500) in the Canyon Lakes project in the San Ramon Valley.

During 1984, the average subdivision density dropped to 3.8 units per acre, rose to 4.8 units in 1985, and further increased to 5.6 units per acre during 1986. For the latest period, the first five months of 1987, the average density of subdivision applications has dropped to only 3.6 lots or condos per acre. This lower overall density reflects the large number of applications pending in the Oakley area, most of which are proposing conventional densities of 3 to 6 units per acre. The 1987 and 1988 averages are also moving upward because of the fairly high densities that are being approved for condominium projects in the unincorporate area near Pleasant Hill BART.

Table IV-4 also indicates the change in average densities for lot and condominium subdivisions separately. Since 1980, the density for traditional single family subdivisions has fluctuated between 1.3 and 3.5 units per gross acre, with a strong upward trend in recent years. The average density of all condominium subdivisions has fluctuated even more dramatically over the last seven years. Densities for the average condo project was almost 16 units per acre in 1980, dropped to only 9 units in 1981, stabilized at about 12 to 14 units per acre during 1982-1983, dropped again in 1984, and has increased to over 25 units during 1987 and the first half of 1988.

The characteristics of specific large condominium projects which bias the annual average explain much of this dramatic shifting in densities from year to year. Notably, in 1984 a large (over 700 units) townhouse subdivision was approved as part of the continuing development of the Discovery Bay project in the Delta near Byron. The condos in Discovery Bay are being constructed at a relatively low density, about 7 units per acre, as are the townhouses that were approved that year for the large Kaufman & Broad subdivision in West Pittsburg (California Cove). Conversely, the density of the largest condominium application received during 1987 and 1988 is for over 40 units per acre (the proposed 120 unit Desco project near Pleasant Hill BART).

In comparison to the other portions of the region, Contra Costa County is still well below the regionwide residential density of roughly eight dwelling units per acre. According to estimates by various groups, the outlying suburban areas of the San Francisco Bay Area support a residential density of between four and six units per gross acre, similar to the recent subdivision approval given in the County. As the price of land continues to accelerate in the San Francisco suburbs and more multiple family, attached housing is constructed, the overall residential density in Contra Costa and other nearby counties can be expected to slowly increase over coming decades.

Characteristics of the Current Housing Stock

A detailed analysis may be made of the County's housing stock using information collected by the 1980 Census and modified by adding in the number and type of housing units that have been constructed since then.

Almost three-quarters (73%) of the housing in Contra Costa County consists of single family homes, with very little variation between the three sub-areas of the County (see Table IV-5). Approximately twenty five percent of the housing in West and Central County is multiple family units (2 or more units attached), while only 19% of the housing is apartments in East County. Only 2% of the housing in the County is provided by mobile homes located in both mobile home parks and on individual parcels.

Table IV-5
TYPE OF HOUSING
BY SUB-AREA OF CONTRA COSTA COUNTY
(1988)

	<u>Single</u> <u>Family</u>	(% of Total)	<u>Multiple</u> <u>2-4</u> <u>Units</u>	(% of Total)	<u>Multiple</u> <u>5+</u> <u>units</u>	(% of Total)	<u>Mobile</u> <u>Homes</u>	(% of Total)
West County	58,460	72%	9,537	12%	11,309	14%	1,284	2%
Central County	118,455	73%	9,165	6%	32,253	20%	2,380	1%
East County	40,708	76%	3,889	7%	6,593	12%	2,485	5%
Total County	217,623	73%	22,591	8%	50,155	17%	6,149	2%

Source: U. S. Dept. of Commerce, Bureau of the Census, 1980 Census Population, STF3, updated by Contra Costa County Community Development Department.

Physical deterioration of the County's housing stock is not a severe problem because little of the housing stock is extremely old. However, many of the dwellings built at the beginning of the growth era (in the 1930's and 1940's) will soon reach an age at which deterioration will become a problem. The age of the housing stock varies considerably from area to area. According to the 1980 census of housing, in West County 62% of the housing units were built before 1960, compared to East County, where 40% were built before 1960. Almost one-third (31%) of the County's housing has been constructed since 1960.

The County housing stock consists of two-thirds (68%) owner occupied homes and one-third (32%) renter occupied. Tenure within the County has varied historically, although in recent years it has been relatively steady. The percentage of home ownership increased until 1960 when it reached a peak of 72% of the households. It has decreased slightly since 1960 partly as a result of an increase in construction of apartment structures and, more recently, due to the high cost of home ownership. The percentage of renters is highest in West County where about 37% of the households are occupied by renters. Central County is the lowest with 29% renter households. The proportion of renters grew slightly in each of the County's sub-areas between 1975 and 1980.

Housing Unit Projections

The number of newly formed households in Contra Costa County has increased at a rate greater than population growth, as was discussed in the previous chapter. Average household size has been decreasing in recent years as family sizes decline and more single and two-person households are formed. Projections by the Association of Bay Area Governments (ABAG) indicate that the number of households (or occupied housing units) in the County will grow at a rate of 13% between 1985-1990, as compared to an estimated population increase of 10% (see Table IV-6). This relationship (a higher growth rate in household formation than population) is expected to continue at least to the year 2005. This demographic trend will require the production of additional new housing units in excess of that required by the rate of population growth. Countywide, over 101,000 new households are anticipated to be formed over the next 20 years.

The fastest growing area in the County will be the eastern sub-area, which will add 91,700 new residents (a 72% increase) and 43,000 new households (a 97% increase) between 1985 and 2005. Household and population growth in East County is expected to remain very high throughout the 1990's (in the range of 18% to 22% five year rates). The San Ramon Valley will register a fantastic 30% to 35% growth rate between 1985 and 1990 dropping to rates of 9% to 17% in the 1990's. North Central and West County will experience much smaller growth rates during the 1990's, in the range of 2% to 9% for each five year period. While less than one new household will be formed for every two new residents in East County, the number of new residential units required to house the projected population increase in West County is relatively high compared to East County because of the much smaller household size.

Table IV-6

PROJECTED GROWTH OF
HOUSEHOLDS AND POPULATION
BY SUB-AREAS
(1985-2005)

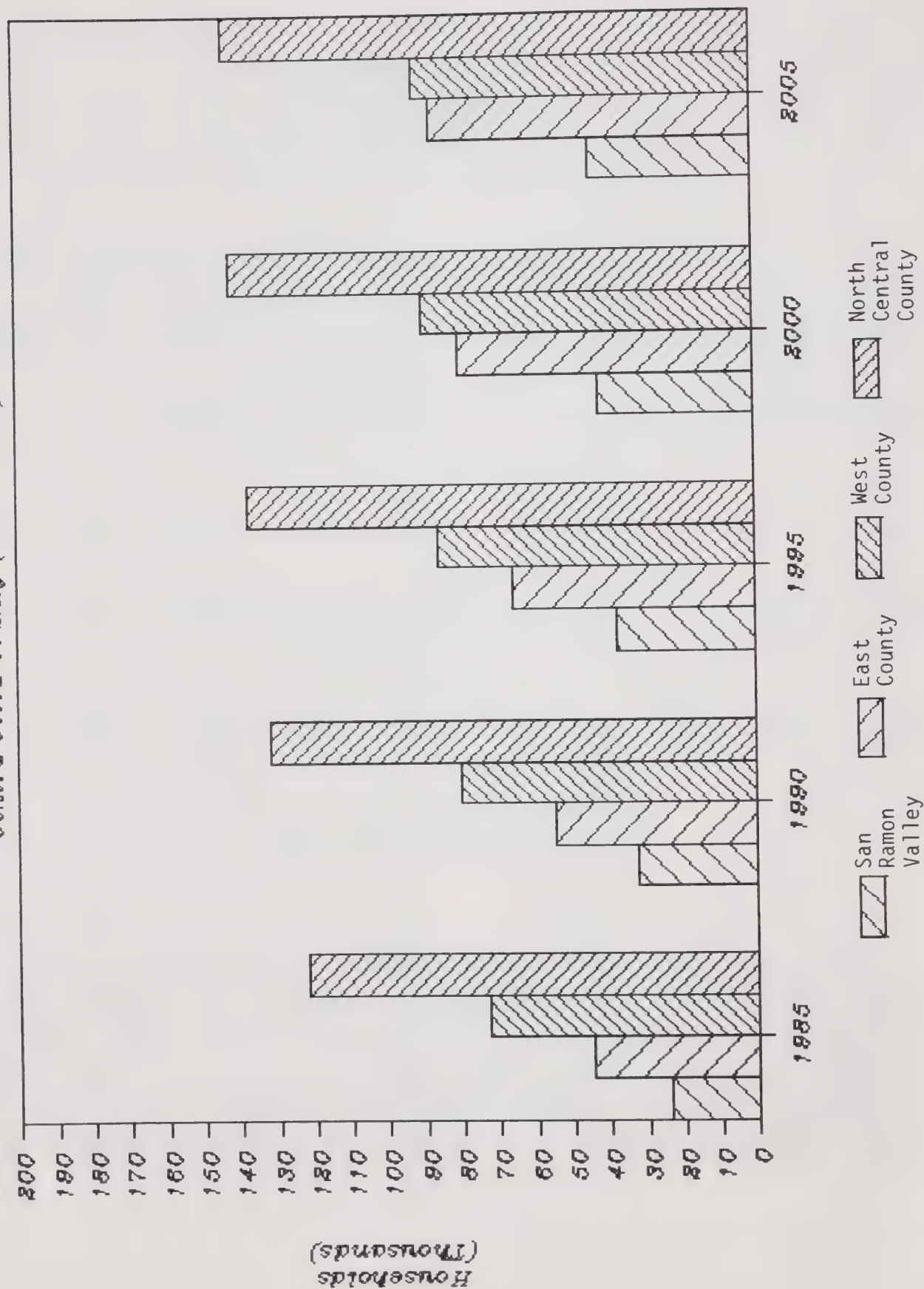
	<u>1985-1990</u>	<u>% Incr.</u>	<u>1990-1995</u>	<u>% Incr.</u>	<u>1995-2000</u>	<u>% Incr.</u>	<u>2000-2005</u>	<u>% Incr.</u>
WEST COUNTY								
Household Growth	6,800	(9%)	6,000	(8%)	4,100	(5%)	2,100	(2%)
Population Growth	12,900	(7)	8,000	(4)	3,900	(2)	3,200	(2)
NORTH CENTRAL COUNTY								
Household Growth	9,800	(8)	6,000	(5)	4,500	(3)	1,200	(1)
Population Growth	14,400	(5)	7,700	(2)	5,100	(2)	100	(0)
SAN RAMON VALLEY								
Household Growth	8,300	(35)	5,600	(17)	4,700	(12)	1,700	(4)
Population Growth	21,800	(30)	12,700	(14)	9,800	(9)	3,800	(3)
EAST COUNTY								
Household Growth	10,300	(23)	11,200	(21)	14,300	(22)	7,200	(9)
Population Growth	23,100	(18)	22,700	(22)	30,000	(16)	15,900	(8)
TOTAL								
Household Growth	5,100	(13)	28,700	(10)	27,600	(8)	12,100	(3)
Population Growth	72,000	(10)	52,200	(7)	48,700	(6)	23,100	(3)

Source: ABAG, Projections '87; Contra Costa County
Community Development Department.

Between 1990 and 2000, ABAG projects that approximately 10,000 households will be added in West County, in North Central County and in the San Ramon Valley, with 25,500 households in East County (see Figure IV-10). Currently, only 17% of all households to be formed are in East County, with over one half located in the North Central and San Ramon sub-areas. Because the growth rate in East County is expected to be more than twice that of the other three areas, the proportion of total households will increase significantly in that part of the County and decrease elsewhere. By the year 2005, one out of every four households in the County will be in the eastern area, slightly more than in West County.

FIGURE IV-10

Projected Number of Households *Contra Costa County (1985-2005)*



The ABAG household projections for each individual city Sphere of Influence area over the next twenty years are presented in Table IV-7. By assuming a certain housing unit vacancy factor, the ABAG projections can be converted into the number of new housing units that are expected to be constructed during the period. For example, the projections indicate that within the Antioch Sphere of Influence area, almost 18,000 new households are anticipated by the year 2005. This projection translates into approximately 18,360 additional housing units which would be needed to shelter the new residents (assuming a 2% vacancy factor), or a building rate of almost 1,000 units per year. Much of the growth expected in the Antioch area will come during the 1990's, when the city's housing base is projected to increase by 56% from approximately 21,700 households (or about 22,135 units) to 33,200 households (35,865 units).

Other construction hot spots that are anticipated to grow rapidly include "Rural East Contra Costa County" (encompassing unincorporated Oakley and Byron) and the Brentwood Sphere areas, which are both forecast to add some 5,200-5,400 new households in each location during the 1990's (or about 11,000 housing units built between 1990 and 2000 in the area east of Antioch). The Pittsburg Sphere area is also expected to grow rapidly during this period, adding 3,200 new homes during the 1990's, before slowing down after the turn of the century.

In Central Contra Costa County, household growth is projected to continue at a moderate pace in the cities along I-680. The Concord area can be expected to add another 2,000 households in the early 1990's, with slower growth projected through the year 2005, as the city fills out. Walnut Creek is also expected to add 2,000 new families over the fifteen year period between 1990 and 2005, with Pleasant Hill growing by only 700 households during that time. The most significant new development is anticipated in the Martinez Sphere of Influence, where growth may amount to 2,000 households (or about 2,040 new homes) between 1990 and 2005.

In the San Ramon Valley, the pace of construction will be strong within the San Ramon Sphere of Influence (which includes the huge West Branch and Canyon Lakes developments). The San Ramon area is projected to grow by 5,200 households during the latter half of the 1980's, with an additional 6,100 families moving in during the 1990's. The Danville Sphere (including several large projects in the Sycamore Valley and Tassajara areas) is expected to add about 1,500 housing units during the late 1980's and over 3,000 units during the 1990's.

In West County, the very large Richmond Sphere area, which includes unincorporated North Richmond and El Sobrante, is forecast to grow by 11,400 households between 1985 and the year 2005. Growth is expected to remain strong throughout the twenty year period, with about 3,000 new housing units added during each of the five year periods during the late 1980's and through the 1990's. Housing growth will also be very dynamic in the Hercules Sphere area. The area is expected to absorb approximately 2,200 units during the latter half of this decade, with another 1,400 households expected during the 1990's. Housing growth in Hercules is expected to decline significantly after the year 2000, with any growth probably occurring in the Sphere area east of the current city limits. The Pinole Sphere area, which includes the unincorporated Tara Hills community, is expected to grow by over 1,000 new households between 1985 and 1995, for a total of 1,700 families (or about 1,735 new housing units) for the twenty year forecast period.

TABLE IV- 7

ABAG HOUSEHOLD PROJECTIONS
(1000's)

<u>Subregional Area¹</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>% Change 1985-2005</u>
Antioch	18.0	21.7	27.1	33.2	36.0	124.0
Brentwood	2.4	3.1	4.7	8.3	10.6	342.0
Clayton	2.4	2.8	3.0	4.0	4.1	71.0
Concord	40.4	43.4	45.4	46.7	47.1	16.6
Danville	10.6	12.1	13.4	15.0	15.4	45.3
El Cerrito	12.4	12.9	13.0	13.1	13.1	8.2
Hercules	3.0	5.2	6.4	6.6	6.6	120.0
Lafayette	8.8	9.0	9.2	9.3	9.3	5.7
Martinez	13.6	15.3	16.4	17.1	17.3	27.2
Moraga	5.0	5.5	5.9	6.4	6.5	30.0
Orinda	6.3	6.5	6.7	6.7	6.7	6.3
Pinole	8.4	9.0	9.4	9.9	10.1	20.2
Pittsburg	17.5	21.2	23.0	24.4	24.9	42.3
Pleasant Hill	13.7	15.6	16.0	16.2	16.3	19.0
Richmond	34.9	37.8	41.7	44.6	46.3	32.7
San Pablo	9.8	10.2	10.3	10.4	10.4	6.1
San Ramon	8.2	13.9	17.3	20.0	21.1	157.3
Walnut Creek	31.3	33.1	34.2	35.1	35.1	12.1
Alamo-Blackhawk ²	4.6	5.6	6.3	6.6	6.7	48.9
Rodeo-Crockett ³	4.2	4.4	4.6	4.8	4.9	16.7
Rural East Contra Costa ⁴	6.1	8.2	10.6	13.6	15.4	152.5
Remainder of County	1.8	2.1	2.5	2.8	3.1	72.2
TOTAL: Contra Costa County	263.4	298.4	327.2	354.7	366.9	39.3

Source: ABAG, Projections '87¹ Areas correspond to City's Sphere of Influence unless otherwise noted.² Subregional area is the Sphere of Influence of the San Ramon Water District.³ Subregional area corresponds to the unincorporated communities within the EBMUD water service area.⁴ Subregional area includes the unincorporated communities of Oakley, Sand Hill, Discovery Bay, and Bethel Island, as well as adjacent rural territory outside of Antioch's Sphere of Influence.

Based upon the ABAG projections of future population growth and household formation rates, the size of the average household in Contra Costa County is expected to decline from 2.65 persons in 1985 to 2.50 persons per household in 1995, and further drop to 2.42 persons in 2005. The average household size in Contra Costa County is projected to remain slightly higher than the average size in the San Francisco Bay region through the year 2000.

As noted in the previous chapter, the average household size of most counties in California (but not including Contra Costa) actually increased slightly or remained stable between 1980 and 1985, a surprising change after the steep drop in household size during the 1970's. Demographers believe that during the first half of the 1980's foreign immigration, coupled with short term increases in the birth rate (reflecting delayed child-bearing among some groups) caused a brief interruption in the long-term decline in household sizes. Because of the unexpected "baby boomlet", the average household size is now projected to continue its decline at a more moderate rate, especially notable during the 2000-2005 period.

The ABAG projections imply the need for approximately 35,000 new housing units in Contra Costa County between 1985 and 1990, 29,000 units between 1990 and 1995, 28,000 units between 1995 and the year 2000, and 12,500 units during the first five years of the twenty first century. The housing demand represented by the ABAG 2005 household projections translates into about 5,000 new dwelling units added to the Contra Costa County housing stock each year.

The Affordability Dilemma

While enough vacant land exists in Contra Costa County to provide housing for future generations, many young families and other groups will find it very difficult to purchase these new homes, based upon current sales prices and interest rates. The dilemma of very high housing costs effectively pricing many potential homebuyers out of the market is not peculiar to Contra Costa County, or even the San Francisco Bay Area, but is part of a statewide problem.

The average sales price of homes in Central and East Contra Costa County varies widely from one community to the next (see Table IV-8). Based upon the most recent data from local realtors, the most expensive housing is found in the Blackhawk and Diablo areas (an average sales price of approximately \$445,000-\$515,000), and in Lafayette-Moraga-Orinda (average sales price in the range of \$325,000-\$415,000). The only home sales prices which average less than or slightly above \$100,000 are in East County (the Antioch-Pittsburg-Oakley areas), which average between \$95,000 and \$115,000.

The largest amount of housing that turns over in Central County is in Walnut Creek and Concord, where first quarter 1988 sales prices averaged 248,800 and \$142,400 for a single family home, respectively. The average sales price of all homes and condominiums in the East and Central County areas during the first four months of 1988 was about \$200,200, compared to a Bay Area median price of about \$189,000.

Appreciation in home values in the San Francisco Bay Area hit record levels in early 1988. The California Board of Realtors estimated that home prices in the region rose by an average of 2.5% during April, 1988 alone, and were up by 13.8% over the previous year. In Contra Costa, the highest increase in sales prices occurred in San Ramon, where home values escalated by 16% during the last one month period.

TABLE IV-8

AVERAGE SALES PRICE
OF HOUSING IN CONTRA COSTA
COUNTY BY CITY
(1988)

<u>City or Area</u>	<u>Average Sales Price¹</u>	
	<u>Homes</u>	<u>Townhouses/Condos</u>
Alamo	\$368,500	\$170,800
Antioch	112,200	58,200
Blackhawk	529,600	248,300
Concord	142,400	79,900
Danville	296,700	163,800
Diablo	446,800	N/A
Lafayette	324,600	141,500
Martinez	149,000	117,500
Moraga	362,600	174,300
Orinda	414,300	339,500
Oakley	111,600	N/A
Pittsburg	95,100	77,400
Pleasant Hill	190,400	127,600
San Ramon	225,100	132,900
Walnut Creek	248,800	128,100
All of East & Central County		\$200,200
West County ²		\$130,800

Source: Contra Costa Board of Realtors; West Contra Costa Board of Realtors

Notes: ¹ Average sales price of homes sold from the Multiple Listing Service between January and April, 1988.

² Average sales price of all homes and condos sold in West Contra Costa cities between January and April, 1988. No average for individual cities.

Given the current lending practices of banks and savings and loans, to qualify for a loan to purchase the average priced \$200,000 home in Contra Costa County, a family would need an annual income of approximately \$60,000, assuming a 20% down payment (see Table IV-9). In order to qualify for a much less expensive \$115,000 home in the East County area, a family would be required to have an income of over \$37,000.

On the other end of the spectrum, to afford payments for a \$250,000 house, a family would need a combined income of almost \$6,200 per month, or about \$74,000 annually. It should be noted that many first-time homebuyers put down only 10% of the sales price. In this situation, the family income required to finance a loan would be higher than the figures above.

The California Board of Realtors has estimated that as April, 1988 only 15% of the households in the San Francisco Bay Area could afford the cost of the median priced home in the nine county region (\$189,000).

TABLE IV-9
HOME SALES PRICE AND
FAMILY INCOME REQUIRED
(June, 1988)

<u>Home Sales Price</u>	<u>Gross Family Income Needed to</u> <u>Qualify for a Loan</u>	
	<u>Monthly</u>	<u>Annual</u>
\$100,000	\$2,475	\$29,700
\$115,400	\$2,850	\$34,200
\$130,000	\$3,225	\$38,700
\$145,000	\$3,600	\$43,200
\$165,000	\$4,095	\$49,140
\$180,000	\$4,470	\$53,640
\$200,000	\$4,965	\$59,580
\$250,000	\$6,200	\$74,400
\$300,000	\$7,440	\$89,300

Source: Contra Costa County Community Development Department

Note: ¹ Assumes 20% down payment; 80% of sales price is amortized over 30 years at 10.0% interest rate; annual costs of property tax and insurance is 1.5% of sales price; monthly housing costs are 33% of gross family income. Calculations have been rounded off. Family income required to finance a loan would be higher than the figures above if only a 10% down payment was made.

V. THE ROLE OF AGRICULTURE IN THE COUNTY

Early History

The Spaniards and Mexicans introduced cattle grazing to Contra Costa County in the early 1800's. Later in the century most of the county's fertile and level land, primarily in the delta lowlands and valleys of Central County, was converted to grain farming. This same land in Eastern and Central County has continued to be the center of most agricultural activity in the County. In the early 1900's, much of this land was converted to orchard crops such as pears, apricots, grapes, walnuts, and almonds. In the 1920's and 1930's, significant acreage was converted to vegetable row crops. The principal vegetables produced were tomatoes, asparagus, potatoes, lettuce, beans, cucumbers, peas, cabbage, cauliflower, and onions. With the exception of tomatoes, which were produced throughout the area, most of the vegetables were grown on the valley plain and river delta lands.

Dairying and poultry ranching were also very important agricultural activities during the 1930's. In 1929, over 5.3 million gallons of milk were produced by dairies, most of which were located in the eastern part of the County where it was possible to grow alfalfa feed for the animals. At that time, there were 136 farms which derived most of their income from poultry products. These poultry ranches were scattered throughout the County, with major concentrations around Lafayette and towns in the San Ramon Valley.

The Conversion of Agricultural Lands Since 1940

The Contra Costa County Agriculture Department began keeping extensive records of all commercial acreage in agricultural production in 1939; thus, a detailed analysis of changes over the last 50 years is possible.

The dominant trend in local agriculture in Contra Costa County since 1940 has been a significant decrease in the amount of acreage in production. Much of this decline is attributable to the increasing urbanization of the region, a process which over time gradually converts agricultural lands to housing and other urban uses. It has been estimated that 190,000 acres of agricultural lands within the nine county Bay Area have been converted to other urban uses during the 25 year period 1949-1974. In Contra Costa County, land in all types of active agricultural uses (cropland and grazing lands) has declined by almost half, from over 400,000 acres in 1940 (or 85% of the County's total land area) to less than 210,000 acres in 1986 (45% of all County lands).

Table V-1 includes a general summary of changes in acreage devoted to the major types of agricultural production in Contra Costa County since 1940. It should be noted that range and pasture lands, which provide grazing for large farm animals and dry farming of grains for feed, have historically accounted for a large portion of total agricultural acreage in the County. These lands include all the areas with steep slopes, rugged terrain, a lack of an adequate water

TABLE V-1

CHANGE IN AGRICULTURAL ACREAGE
BY TYPE OF ACTIVITY¹
IN CONTRA COSTA COUNTY
(1940-1987)

	<u>1940</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1983</u>	<u>1987</u>
Pasture and Range	275,500	246,250	217,000	187,060	175,730	176,180	177,280
Field Crops	80,780	55,990	38,170	31,210	22,800	23,130	14,400
Vegetables	21,260	10,750	16,940	7,230 ²	7,680	7,830	10,160
Fruits & Nuts	30,780	30,590	27,510	18,940	11,160	8,790	7,370
TOTAL	408,320	343,580	299,620	244,440	217,370	215,930	209,210

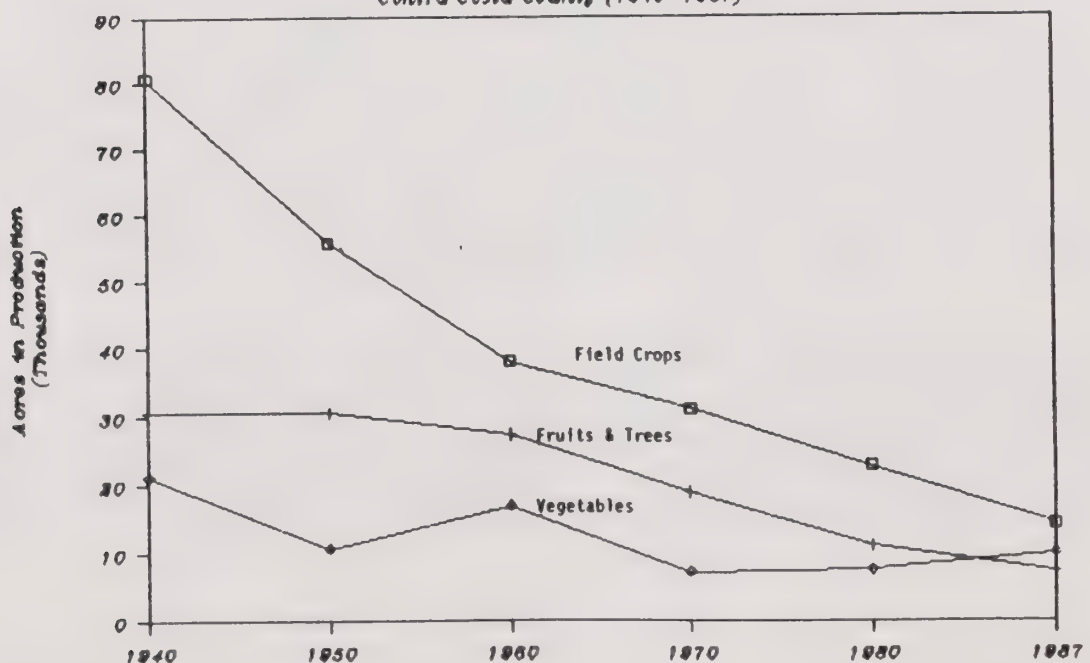
Source: Compiled from Contra Costa County Agriculture Department annual Crop and Livestock Reports.

¹Includes only acres harvested or under cultivation, rounded to nearest 10 acres.

²Severe spring frosts during 1970 resulted in an abnormally low number of acres in vegetables. In 1969 and 1971 there were 5,660 and 8,030 acres in vegetable production, respectively.

FIGURE V-1

Decline in Farm Acreage
Contra Costa County (1940-1987)



supply, or other natural constraints which make the land unsuitable for more intensive agricultural activities. In 1940, two-thirds of all agricultural lands in the County were in this rangelands category; by 1987 rangeland accounted for 85% of all agriculture, primarily due to the decline in other intensive farming techniques.

While the total amount of agricultural land countywide has decreased by 49% since 1940, changes in the non-rangelands farm categories have been even greater. Field crops such as hay, barley and wheat have plummeted in acreage by 82% over the period, although most of the decline occurred prior to 1970 and the amount of land producing these crops remained relatively stable through the early 1980's (see Figure V-1).

Vegetable croplands decreased in acreage by over one-half between 1960 and 1987. In 1960, over 10,000 acres of land in the County was planted in asparagus and 2,900 acres in lettuce. By the 1980's, asparagus was being cultivated on about 2,500 acres each year and virtually no lettuce was being grown. The most significant vegetable crop which is still being harvested and processed is tomatoes in East County.

Farmlands supporting fruit and nut trees have decreased significantly since the years prior to World War II, when orchards dotted the flat valleys of Central County. Although land producing fruits and nuts declined by less than 40% between 1940 and 1970, the numbers distort the true story. While subdivisions overran the orchards outside Walnut Creek and Concord, new tree crops were planted on irrigated lands in East County. In 1960, there were almost 4,500 acres of apricot and pear trees; by 1986, that number had dropped to less than 1,500 acres. Wine grapes, once grown on over 5,000 acres, now account for less than 1,000 acres. The most important crops in the fruit and nut category, in terms of acreage, continue to be walnuts and almonds, which account for about 4,000 acres in the County.

Although the cultivated acreage in all categories of farm crops has declined precipitously over the last 50 years, significant increases in productivity has offset the vastly reduced acreage available for some crops. For example, although the land in the County devoted to tomatoes has remained relatively stable (5,900 acres in 1940 to 6,050 acres in 1986), the yield has more than tripled from 39,000 tons to 186,600 tons annually.

As Contra Costa County has undergone a dramatic transition from a rural to suburban environment, specialized forms of agriculture such as nursery products have increased their market. In 1960, approximately 1.4 million square feet and 62 acres were devoted to raising ornamental trees and shrubs, indoor plants and cut flowers, primarily roses. By 1987, floor area of greenhouses in the County had more than doubled and 250 acres of land were cultivated in nursery products (including 113 acres for Christmas trees). The largest nursery crop producers are located in the North Richmond area of West County.

The number of livestock in the County, primarily beef and dairy cattle, has declined from 43,000 head in 1960 to 23,000 head in 1984 to about 17,000 in 1987. Recent federal legislation, changing consumer habits, and foreign competition had a particularly disastrous impact upon local cattle ranchers in Contra Costa during the mid-1980's. Cattle ranchers have begun to rebound from the downturn during the last year.

On the dairy side, milk production is still a significant activity in the County, with a handful of large producers. The volume of milk marketed has grown from 283,000 hundred weight (cwt) in 1960 to 361,000 cwt. in 1970 to about the same amount in 1987.

A Closer Look at Agriculture in Contra Costa

Over the last two decades the number of farms in Contra Costa County has fluctuated, due to changing characteristics of the agricultural economy. In 1964, the County supported 1,340 farms, while ten years later that number had shrunk to 740.¹ Since the 1974 Census of Agriculture the number of farms has actually increased substantially, although the number of acres of harvested croplands has consistently declined.

The rise in the number of farms in Contra Costa County between 1974 and 1982 is explained by the data in Table V-2. Analyzing the number of farms by relative size indicates that most of the increase has occurred in very small farm units (less than 10 acres). While small farms represented only one-quarter of all farms in 1974, by 1982 that portion has risen to 40% of the total. The relative number of large farms (over 500 acres) has remained constant at around 90, although their proportion of the total has declined from 13% to 9%.

During the 1970's and early 1980's Contra Costa County has seen the growth of "ranchette" style housing. These homes appeal to people with urban incomes whom wish to pay extra to live in the more rural and hilly parts of the County and are typically located on large (5 acres or more) residential lots. In recent years, ranchette development has apparently resulted in the addition of more "farm" operations. Ranchette owners will harvest a small amount of crops on their lots, perhaps to take advantage of the tax shelter afforded by such an arrangement. (A further discussion of ranchette policy in the County is included later in this chapter).

¹The U.S. Bureau of the Census definition of a "farm" is "any place from which \$1,000 or more of agricultural products were sold or normally would have been sold" (1974, 1978, and 1982 Censuses); or "any place with less than 10 acres from which \$250 or more of agricultural products were sold" or "any place of 10 acres or more from which \$50 or more of agricultural products were sold" (1964 and 1969 censuses).

TABLE V-2
DISTRIBUTION OF FARMS BY SIZE
IN CONTRA COSTA COUNTY
(1974 and 1982)

Farm Sizes (acres)	<u>1974</u>		<u>1982</u>	
	Farms	% of Total	Farms	% of Total
1-9	187	(25%)	380	(40%)
10-49	245	(33%)	267	(28%)
50 - 100	91	(12%)	76	(8%)
100-259	77	(10%)	101	(10%)
260-499	47	(6%)	48	(5%)
over 500	93	(13%)	90	(9%)
TOTAL	740	(100%)	962	(100%)

Source: U.S. Dept. of Commerce, 1974 and 1982 Census of Agriculture, County Data, Table 4.

Table V-3 gives a fuller illustration of current agriculture in Contra Costa County by tracing the change in gross receipts of various farm products for the years 1980, 1984, and 1987. The year 1983 was not used as an interim year because many crops were adversely by extended Spring rains. It should be noted that the receipt values for agricultural goods do not take into account the costs of production, transportation, or marketing.

Virtually all of the row and orchard crop farms with significant annual sales are located on East County lands adjacent to the Sacramento-San Joaquin River Delta, with the exception of several greenhouse and nursery operators located near Richmond in West County. Production of specialized nursery crops (bedding plants, cut flowers, house plants, shrubs, and Christmas trees) is by far the largest money-making agricultural operation in Contra Costa County, amounting to \$20 million in gross receipts in 1987. The sale of nursery crops now makes up an incredible one third of the approximately \$60 million collected each year in agricultural receipts.

The local industry produces roses, which are grown in over one million square feet of greenhouse space and represented \$5 million in receipts in 1987. The largest single crop in terms of sales, however, is bedding plants, which has more than doubled from a \$4 million business in 1980 to \$9.7 million in 1987. It's interesting to note that as sales of bedding plants have grown, the sale of decorative (house) plants has decreased from almost \$5 million in 1980 to \$1.7 million in 1987. Other lucrative nursery crops in Contra Costa County are herbaceous perennials (\$1.8 milion), vegetable plants for the home garden (\$700,000), and ornamental trees and shrubs (\$160,000). Receipts from Christmas tree sales amount to approximately \$180,000 annually.

TABLE V-3

GROSS RECEIPTS OF AGRICULTURAL PRODUCTS
(1980, 1984, and 1987)(Gross Volume of Sales in
Millions of Dollars)

	<u>1980</u>	<u>1984</u>	<u>1987</u>
<u>Nursery Products</u>			
Indoor decoratives	\$4.9	2.4	1.8
Bedding plants	4.0	5.8	9.7
Roses	3.8	5.2	5.0
Vegetable plants	1.4	0.8	0.7
Herbacious/perennials.	1.1	1.1	1.8
Other nursery products	1.8	3.0	1.0
Sub-total	17.0	18.3	20.0
<u>Vegetables & Seed Crops</u>			
Tomatoes	5.7	7.4	9.0
Asparagus	2.4	2.9	3.2
Sweet Corn	0.7	1.7	1.1
Squash	0.6	1.0	0.4
Melons	N/A	1.1	0.1
Other vegetables & crops	1.3	0.8	0.9
Sub-total	10.7	14.9	14.7
<u>Livestock, Poultry, Apiary</u>			
Sale of beef cattle	7.6	5.7	5.0
Dairy milk	4.6	7.4	4.2
Other livestock/ apiary/poultry	1.9	2.9	2.1
Sub-total	14.1	16.0	11.3
<u>Fruits & Nuts</u>			
Walnuts	2.8	1.3	1.4
Apricots	1.0	2.0	1.6
Pears	0.8	0.4	N/A
Cherries	0.7	1.0	1.0
Grapes	0.5	0.5	0.5
Other fruits & nuts	0.9	1.9	2.6
Sub-total	7.0	7.1	7.1

Field Crops

Pasture crops	3.5	3.1	3.1
Sugar beets	2.9	1.2	N/A
Wheat	1.9	1.3	0.6
Hay	1.9	1.2	1.4
Field Corn	0.9	2.9	1.1
Other field crops	1.8	0.9	1.6
Sub-total	<u>12.9</u>	<u>10.6</u>	<u>7.8</u>
Grand Total	\$61.6	\$66.8	\$60.9

Source: Contra Costa County Department of Agriculture, annual Crop and Livestock Reports.

Notes: Gross receipts listed above do not take into account the costs of production, transportation, or marketing.

The year 1984 was used as an interim year in the table because the 1983 season was seriously affected by extended Spring rains.

Although only 31 farms were counted as harvesting vegetables at the time of the last census in 1982, the market value of the produce has grown to almost \$14.7 million in 1987. Tomatoes represent the biggest portion of vegetable sales, about \$9 to \$10 million annually, up from \$7.4 million in 1984. Much of the recent increase is due to increased crop yields, which amounted to almost 33 tons per acre in 1986 but dropped to 30 acres during the last year. Tomatoes are raised on a dozen East County farms totalling 5,900 acres, representing over half of all cropland used for vegetables.

Other important vegetables in the County are asparagus (\$3.2 million in gross receipts in 1987), which is raised on four farms encompassing 2,500 acres in East County. Sweet corn is raised on less than a dozen small farms with only 645 acres, but brings in over \$1 million annually. Cultivation of lettuce was previously a major cash crop in East County, but production has all but disappeared in recent years. Melons were a big crop during 1984-1985 (\$1 million in receipts), but have dropped to one tenth of that level during 1987.

The other significant vegetables being raised in Contra Costa County are squash (\$400,000), bell peppers (\$230,000), and beans (\$118,000). In general, the total gross receipts of vegetables produced on Contra Costa farms have grown steadily since 1980, although during the last year there was a decrease in gross receipts for all vegetables from \$16.4 million in 1986 to \$14.7 million in 1987, due to smaller crop yields in tomatoes and asparagus.

The beef cattle market has historically been a significant portion (over 10% in 1980) of the agricultural revenues in the County. Over 100 cattle ranching operations are located in the County, while another 30 ranches raise other livestock, including dairy cattle, hogs, sheep, etc. Gross receipts of beef cattle sales plummeted from \$7.6 million in 1980 to \$3 million in 1986, due to foreign competition and federal legislation that resulted in dairy cattle flooding the market. However, during the last year sales have recovered, to post receipts of over \$5 million, a 67% increase. The sale of other large livestock (dairy cows and bulls) also declined during the 1980's, but has remained stable during the last two years.

Only three individual dairying operations continue in East County, and the value of the product has been declining in recent years. The estimated market value of the milk produced in 1987 was \$4.2 million, down from \$5.3 million in 1986 and more than \$6.7 million during the year before.

The largest number of farms in Contra Costa County fall within the "fruits and nuts" category, which is primarily composed of small and medium-sized orchards. Several hundred orchards on approximately 7,000 acres remain in East County and other scattered sites in the County, representing \$7 million in gross sales annually. Many of these small orchards have annual sales under \$10,000.

The dominant orchard crops in Contra Costa County are apricots, English Walnuts in the shell, apricots and almonds. Walnuts are raised in about 125 orchards on 2,200 acres. Each year approximately 1 to 2 tons of walnuts are harvested, representing \$1.4 million in receipts. It should be noted, however, that the acreage in walnut orchards has declined by 50% during the 1980's as orchards in East County have gone out of business or have been converted to urban uses. During the last year alone, 200 acres of walnut orchards went unharvested.

The second most lucrative orchard crop is apricots. Sixty apricot orchards on over 1,000 acres in the County produced \$1.6 million of fruit in the most recent year. Almond orchards cover over 1,700 acres in the County, and the gross receipts of the crop increased to \$169,000 in 1987, after disastrously low per acre yields in 1986. As in the case of walnuts, the number of acres in almonds is shrinking each year. During 1987, 300 acres of almond orchards went unharvested.

Other significant fruit crops are cherries (\$1,038,000 in 1987) and grapes (\$518,000). In the face of declining numbers in most other fruit and nut categories, cherries have been one of the few banner crops in the County, although production has been uneven during recent years. Cherries represented \$1.2 million in gross receipts in 1983, but yields dropped to only 1.5 tons per acre during 1986. In 1987, production was up again to almost 3.5 tones per acre and gross receipts almost doubled from \$581,000 in 1986 to \$1,057,000 last year.

Acreage in wine grapes has remained fairly stable over recent years (about 880 acres of vineyards), while individual growers are beginning to receive more attention from regional winemakers for specific premium grapes, such as zinfandel and other red varietals. Gross receipts for all other fruit and nut crops, including peaches, pears, strawberries, pistachio nuts, etc., amount to about \$2.6 million annually.

Field crops include grains such as corn, hay and silage raised for animals, as well as barley, sugar beets, and wheat. The hay category, composed of alfalfa, grain hay, wild and tame hay, is harvested on 4,000 to 5,000 acres in the County, and represents over 100 separate operators. Annual gross receipts totalled approximately \$1.4 million in 1986, down from \$1.9 million the year before. Corn for grain is grown by one dozen large farms on about 3,200 acres. Annual receipts jumped to almost \$3 million in 1984, but have declined to \$1.1 million in 1987.

Wheat is a substantial field crop in the County, although production has decreased substantially in recent years, from \$1.3 million in gross sales in 1984 to only \$637,000 during the last year. The cultivation of sugar beets for sugar was previously an important crop in the County, with several thousand acres harvested in the early 1980's. However, with the falling price of sugar worldwide, few acres were planted in 1986, down from over 2,000 acres in 1984.

According to data collected in the last 1982 agricultural census, farms in Contra Costa County are typically under family ownership or partnership. Only 48 farms in 1982 were owned by corporations. Tenants lease 90,000 acres of land in the County, scattered between 124 farms. Most farm operators live on the site. The average age of farm operators is over 50 years old and most have been on their farms for over ten years.

Prime and Non-Prime Agricultural Lands

The U.S. Soil Conservation Service classifies soils on a scale from I to VIII based on agricultural suitability and limitations for cultivation. The factors considered in determining soil classes include degree of slope, depth to bedrock, water holding capacity, natural drainage and tendency to flood, risk of erosion, and soil chemistry. Class I and Class II soils are considered prime soils for agriculture. In addition, certain Class III soils, though not technically "prime", are very good for certain types of crops.

Less than 40% of Contra Costa County consists of Class I, II, and III soils. Over half of these lands are located in the Sacramento-San Joaquin River Delta region of East County. The accompanying Map V-1 delineates three major categories of soil capability in the County: prime farmlands (Class I and II); farmlands of statewide importance or unique farmlands that support key economic crops (Class II-IV); and farmlands of local importance (in the Class IV and VI range).

Class I soils, the very best for all types of cultivation, previously existed in the Clayton and Ygnacio Valleys, underneath the urbanized communities of Concord, Clayton, and Walnut Creek. A prime area is also located under the present day City of San Pablo, on the San Francisco Bay plain in West County. The remainder of the Class I soil includes several hundred acres centered around Brentwood in East County, extending westward into the Deer Creek, Marsh, and Kellogg Valleys (see Map V-1). Much of the Class I soils in East County are still under agricultural production, though significant development pressure exists in the area.

Class II soils, very good for cultivation, occupy the Diablo-San Ramon Valley floor, a large part of the Pittsburg-Antioch Plain and throughout the San Joaquin Delta region, and are found along the stream channels of many smaller valleys in the Briones Hill and Diablo Range. Because these areas are located along the traditional transportation corridors, urban development has occurred on much of this Class II land, most recently in the Pittsburg-Antioch area. Because of the extent of Class II and other cultivable soils in the San Joaquin Delta and Brentwood region it may be most important to retain this area for commercial agricultural production.







Class III soils are productive for cultivated crops with proper means of drainage. Most Class III soils are located in the Delta and in the Oakley area. A subsidence rate of about 3 inches a year in the Delta islands has resulted in ground surface elevations of 10 feet and more below the water level. This adds to the difficulty and cost of maintaining the levees and increases the severity of flood damages when a levee break occurs. Nevertheless, these islands are part of the rich Delta agricultural region and should remain in commercial agricultural production for the foreseeable future.

Class IV soils tend to be poorly drained, have excess salts, or are too steep for continuous cultivation. Where cultivable, as in East County and in the southern Diablo Range region, they are suited to irrigated pasture and dry farming of grains such as barley. Where too steep for cultivation, as in the foothills of the Diablo Range, Class IV soils are excellent grazing land less subject to erosion and overgrazing than other range areas. There are no Class V soils in California or the western United States.

NORTH
SCALE: 1"=16,000'



CLASSIFICATIONS:

-  PRIME FARMLANDS
-  FARMLANDS OF STATEWIDE IMPORTANCE
-  FARMLANDS OF LOCAL IMPORTANCE
-  URBAN AND BUILT-UP LANDS
-  UNCLASSIFIED LANDS
-  UNIQUE FARMLANDS

Class VI soils are good for grazing but not suited to cultivation because of steepness, erosion, shallow depth, or high runoff due to the pressure of an impermeable clay pan near the surface. Together, Class IV and VI soils make up approximately 25% of the land in the County.

Class VII soils are marginal for grazing. Grassland productivity is low so the number of cattle that can be run on the land without overgrazing is low, although some Class VII lands are grazed in more favorable locations in the Diablo Range and Briones Hills. Much of these steep shallow soils are in dense brush management and wildlife.

Class VIII rockland is not suited to agriculture but is valuable for preservation of vegetation and wildlife, watershed protection, recreation, and scenic beauty. Tidal areas and filled tidelands have no direct agricultural value, but shallow water areas, mudflats and marshes are of critical value to commercial and recreation fisheries.

Another frequently used soil classification system is the Storie Index, which ranks soils based on the largest number of climatically adapted crops a soils will grow. All Class I and much of Class II soils have the highest Storie Index rating of 80-100. Some Class II and III soils are ranked second at 60-79. Class IV soils are ranked 30-59, and Class VI soils have the lowest classification of 0-19.

A major limitation of using the Storie Index in land use policy planning is that it does not provide a means of identifying the relative value of grazing lands, especially if the land has access to a good supply of irrigation water. The Storie Index also cannot identify non-prime areas which could grow certain crops. Likewise, the Federal classification system does not consider Class III soils to be "prime" lands for cultivation, although some Class III lands with high water tables are very productive and are preferred for certain crops such as grapes, field corn, sugar beets, and dry farmed grains.

The role of climate in mitigating some of the shortcomings of the soil characteristics in California makes the distinction between prime and non-prime less clear. For example, a large proportion of the brussel sprouts that are grown in the State is limited to a small area of two counties on the coast. Most of this land is not prime in the technical sense, but because of its unique climate with no extreme temperatures and cooling coastal fog the land is ideally suited for the crop.

In Contra Costa County, where the influence of coastal fog is felt in the western and central regions, the growing season in areas such as Tassajara Valley and Morgan Territory is extended and even Class IV lands may support dry field crops. The rangelands of Contra Costa and the other counties in the San Francisco Bay region are considered to be some of the finest grazing lands in the nation. Because of the fog, livestock can be grazed on the land for a longer portion of the year, eliminating much of the need for imported fodder. In the Central Valley and the foothills of the Sierra, it may take twenty acres of range to support one cow and her calf; in the East Bay hills, it takes as little as six acres.¹ In East County, the inland climate providing summer heat

¹People for Open Space, Endangered Harvest, 1980, pp. 14-15.

and a long growing season for annual row crops, and the winter chill required by deciduous tree crops and vines is a major factor in making the area excellent for a wide variety of agricultural products. Approximately 30,000 acres of farms in the Brentwood area support crops such as asparagus that depend on the cool weather during parts of the year and typical summer crops such as tomatoes.

Table V-4 summarizes some of the soils series found on agricultural lands in the County. Of major concern to cash crop agriculture are the large tracts of Brentwood series soils in East County, which constitutes some of the finest agricultural land in the country (see Map V-2). The Delta sand series found extensively in East County around Oakley is not technically prime (it's categorized as Class III), but is used to produce irrigated almonds, some grapes, and walnuts. Soils found on lands in the Delta tend to have a fine wet texture, are high in organic matter (peaty), and are not defined as prime because they are subject to salinity, as well as subsidence from wind erosion and oxidation. Examples are the Ryde silt loam of Bethel Island and Palm Tract, which have been used for field corn, tomatoes, asparagus and pasture. A large portion of the land in the foothills throughout the County that is used for grazing falls within the Diablo clay soils series.

Protection and Viability of Agricultural Lands

In 1965 the California State Legislature passed the State Land Conservation Act, popularly known as the Williamson Act, which allowed jurisdictions to establish agricultural preserve programs. These programs allow ranchers and farmers to enter into a contractual agreement whereby tax benefits are granted to qualified landowners who agree to retain their property in agricultural use for 10 years.

In 1969 the Contra Costa County Board of Supervisors approved an agricultural preserve program and approximately 28,000 acres in the County were approved for Williamson Act contracts. The minimum parcel size for land under contract was set at 20 acres, with an overall minimum size of 100 acres in contiguous lots required. However, the bulk of the land in agricultural preserves in the County even today is not prime croplands but large tracts of rangeland used for grazing livestock.

During the early 1970's, a citizens advisory committee under the auspices of the County Department of Agriculture was appointed by the Board of Supervisors to examine the issue of prime agricultural lands in East County and the impact of the preserve programs. The result of the Committee's work was a major report¹ which concluded that the Williamson Act program did not offer adequate protection from the increasing development pressures in the area.

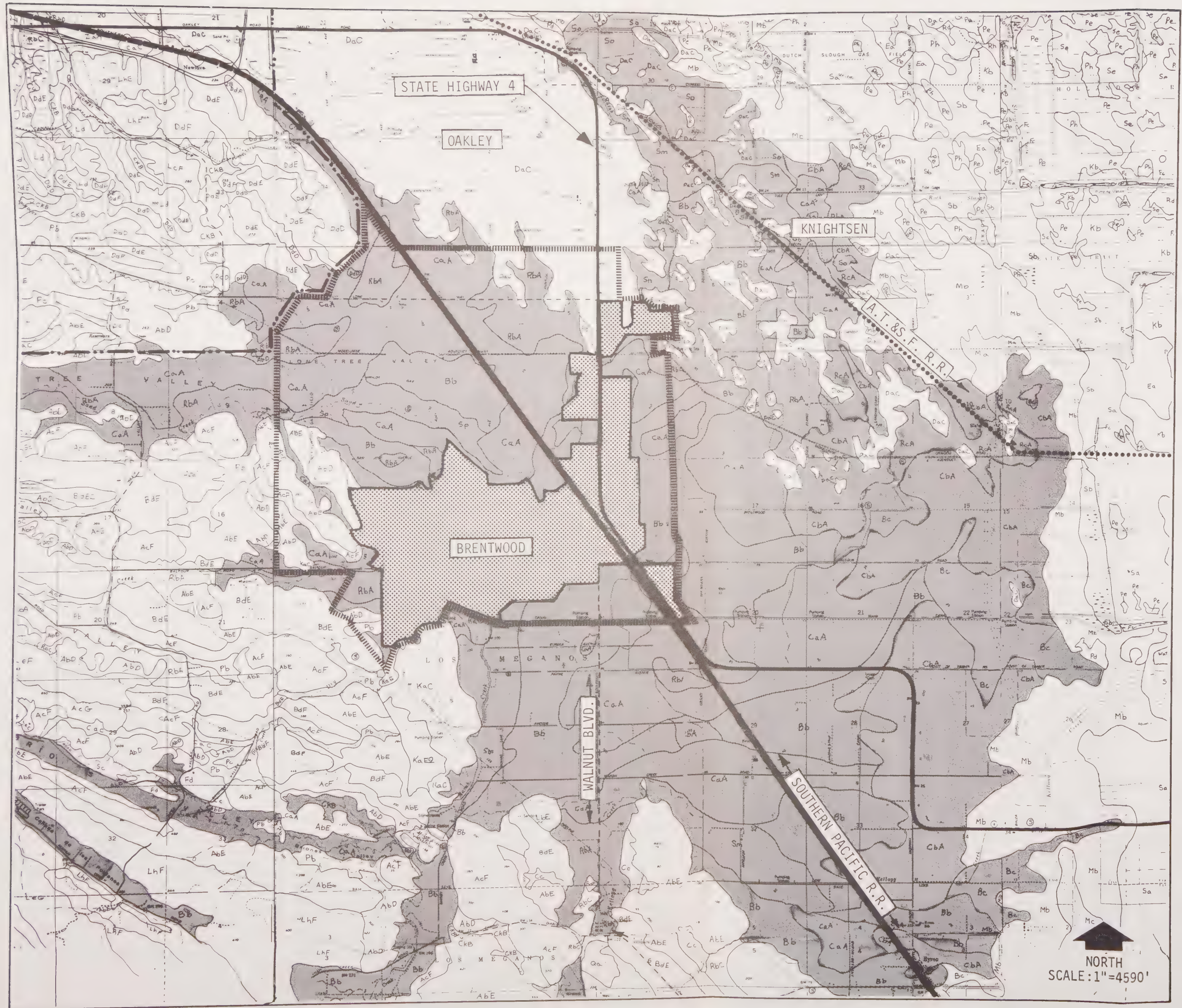
¹Preservation of Prime Agricultural Lands in Eastern Contra Costa County, the Land Conservation Committee Report, January, 1972.

TABLE V-4
TYPICAL SOILS FOUND IN
CONTRA COSTA COUNTY

<u>Soils Series</u>	<u>Locations</u>	<u>Storie Index Rating</u>	<u>SCS Rating</u> ¹
Alo clay	foothills of East County (depending on slope)	6 to 23	Class IV - VII
Altamont clay	foothills of San Ramon Valley (depending on slope)	27 to 36	Class III - VII
Brentwood clay loam	valley floor around Brentwood	85 to 90	Class I - II (prime)
Delhi sand	near Oakley	49	Class IV
Diablo clay	foothills and mountains in East & Central County (depending on slope)	17 to 36	Class III - VI
Piper sand	northerly Delta islands (poor drainage)	48	Class IV
Ryde silt loam	mineral soil in and near the Delta (poor drainage)	50 to 80	Class III
Solano loam	southeast of Byron (level land but highly alkaline)	16	Class VI





Source: Contra Costa County Community Development Department; U.S. Soil
Soil Conservation Service, Soil Survey of Contra Costa County.

Note: ¹ U.S. Soil Conservation Service rating.



PRIME SOILS IN EAST COUNTY:
BRENTWOOD & VICINITY

LEGEND:

-  CLASS 1 & 2 PRIME SOILS
Source: U.S. Soil Conservation
Service Soil Survey of Contra
Costa County; 1973.
-  CITY OF BRENTWOOD
-  BRENTWOOD SPHERE OF INFLUENCE
-  ANTIOCH SPHERE OF INFLUENCE

Reasons for the failure of the program in East County were believed to be related to the restrictive minimum size of farms allowed under the program (100 acres); the relatively small, fragmented ownership pattern in the area (a majority of ownerships are in parcels of less than 40 acres); landowner reluctance to become involved in governmental control and regulation; owner uncertainties about the future of agriculture in East County; inflated land prices due to speculative ownerships; and the personal concerns of owners relating to inheritance, indebtedness, and retirement plans. In partial response to the unique situation in East County, the Board of Supervisors in 1972 amended the agricultural preserve regulations to allow a 35 acre minimum for all contracts within the Byron-Bethany Irrigation District.

The difficulty experienced in East Contra Costa County during the 1960's and 1970's of balancing the property rights of landowners against the desire to preserve agriculture in economically viable units of production has continued through the 1980's. The issue of how small a parcel constitutes an adequate amount of land to support a particular agricultural operation is at the heart of the debate. Once land has been subdivided into lots which will not bring in adequate financial return to the farmer or ranches, the landowner is faced with the inevitable decision to attempt to sell off the land for urban development. Such a decision affects not only the single owner, but all agricultural operators within the immediate area who are then more susceptible to rising land prices and incompatible urban uses on adjacent properties.

A related problem is the need for some farm families to build a second dwelling on the site for a family member, such as a son or daughter. County regulations allow additional units to be built in the agricultural districts with the issuance of a use permit without concurrent minor subdivision. However, banks will not usually lend money to construct a second home unless the land is subdivided off from the main parcel.

This creates a quandry, since there is no legal method to require that the new parcel and home will always be occupied by a farm-related family member. Allowing minor subdivisions throughout agricultural areas, ostensibly to allow new farm family homes, could over time result in a proliferation of housing units occupied by non-farm residents, which in turn would adversely impact the remaining agricultural operations. The incompatibility of farming adjacent to a residential subdivision is well established: certain agricultural practices such as pesticide spraying are difficult in close proximity to suburban tracts, while homeowners' house pets harass livestock and destroy crops.

Determining the minimum amount of land necessary to support a viable cash crop, orchard, or ranch is extremely difficult since the relative financial success of the operation is subject to many variables, not all which are dependent on the size of the parcel under one ownership. In addition, the continuing mechanization of farm operations as a result of rising labor costs requires that the farmer have an increasing amount of land under his control to justify the cost of expensive equipment. Thus, the farmer who has only 20 to 50 acres of

land under cultivation finds himself in a more and more unfavorable position. The small farmer cannot take advantage of the Williamson Act unless he makes an application for an agricultural preserve with other owners. Eventually, the increasing tax burden coupled with the growing demand for semi-rural home sites makes the decision to subdivide and sell off portions of the farm more attractive.

A study of viable agricultural units prepared to assist the Sacramento County Board of Supervisors in implementing minimum agricultural lot sizes was completed in 1976. The report concluded that a minimum parcel size of 160 acres for all non-irrigated land and 80 acres for irrigated land was necessary so that individual farms did not become readily marketable for other than commercial agricultural uses.¹ These recommended minimums were below the actual average size of farms, orchards, or ranches in Sacramento County at the time. The minimum lot sizes were also significantly lower than the report's estimates for what constituted an "efficient" modern California farm. Based upon available information in 1976, a UC-Davis Professor of Agricultural Economics estimated that the following farm or ranch sizes were necessary in order to achieve the economies of scale and per unit production costs to remain competitive: 2,000 acres for row crops; 800 acres for dairying operations; 200 acres for walnut orchards; and 5,000 acres for beef cattle.²

Responding to the regionwide pressures to convert remaining agricultural lands to urban uses, counties throughout the San Francisco Bay region have taken steps to rezone areas of agricultural importance, primarily grazing lands to require larger minimum parcel sizes. In Alameda County, a 100 acre minimum parcel size was established in 1972 to forestall continued non-agricultural subdivision. Because of increased pressure for ranchette development in the Tassajara and Ridgeland area north and west of Pleasanton, the Alameda County Board of Supervisors in 1978 and 1979 rezoned much of the land from 100 to 320 acre minimums.

Neighboring Solano County in 1976 rezoned 230 square miles to require 80 and 160 acre minimum parcel sizes in order to safeguard the crop and grazing areas of the Montezuma Hills from scattered large-lot residential subdivisions. In Santa Clara County, the Board of Supervisors the following year moved to rezone 55,000 acres of primarily cropland in the south valley to 20 and 40 acre minimums in response to the growing number of ranchette-type subdivision applications.

¹"Viable Agricultural Units: A Study Report", prepared by Sacramento County Planning Department and Assessor's Office, and the Cooperative Agricultural Extension Service (unpublished report), November 23, 1976.

²Ibid. The estimates assumed a herd size of 400 dairy or 500 beef cattle, with 2 acres required to support one cow and 10 acres for each head of cattle.

In 1972, the minimum parcel size for the A-2 (General Agriculture) districts in Contra Costa County was changed from one acre to five acres, a compromise by the Board of Supervisors acting upon a recommendation by staff for a 10 acre minimum. A proposal to establish larger minimum lot sizes for 28,500 acres in the Tassajara foothills east of the rapidly urbanizing San Ramon Valley was approved in 1982, creating new 20, 40, and 80-acre minimum parcel sizes for grazing lands in the area.

In East County, the Area General Plan adopted in 1978 for all unincorporated lands excluding the City of Brentwood created three new agricultural designations: Agriculture Core, Agriculture-Recreation, and Agriculture-Residential. The Agricultural Core designation with the requirement of a 10 acre minimum parcel size was placed on some of the Class I and Class II prime agricultural lands, primarily located on either side of Route 4 around Brentwood and to the south toward Discovery Bay. The Agricultural Core designation was not applied to a significant amount of Class I land located in a broad strip east of Marsh Creek between Brentwood and Knightsen (see Figure V-2). These Class I lands, including some interspersed areas of lesser soil quality, are designated in the Oakley General Plan as Agriculture-Residential, which allows ranchette development with a 5 acre minimum parcel size. Much of the area east of Marsh Creek is currently in agricultural production, although some residential development has taken place.

One of the basic goals of the 1978 East County Area General Plan was to preserve and enhance agriculture in the region. To aid in the preservation of the predominantly Class III lands within the existing community of Oakley and to the south, the 1978 plan distinguished between primary and secondary growth areas in the Oakley Community Plan.

The primary growth area, intended to accommodate urban development until 1990, was originally bounded on the south by the Contra Costa Canal, but was later amended to allow growth south to Laurel Road. The land south of Laurel Road within the secondary growth area was designated for "interim agriculture" and was originally planned for development only after infilling of the primary growth area had occurred.

Because of the tremendous amount of residential growth which has been approved in the Antioch-Oakley region over the last several years, the County Community Development Department has recently updated the Oakley portion of the East County Area General Plan. The new Oakley plan adopted by the Board of Supervisors in 1987 continued to designate the Class I agricultural lands in the Agriculture-Residential category. However, the secondary growth area south of Laurel Road was planned for urban development as primarily a single family residential area. The 1987 Oakley Area General Plan was invalidated by a court decision in early 1988 and at the time of this writing a new Environmental Impact Report for the plan is being prepared.

On Bethel Island, also included in the East County General Area Plan, much of the interior of the island is designated for Agriculture-Residential while the lower portion of the island south of Gateway Road is designated for Residential-Very Low Density. The island consists of Class III soils suitable for agriculture. Several major General Plan Amendment applications have been

approved or are under consideration which would redesignate significant areas of Bethel Island for more intensive urban development. The island's largest landowner has funded preparation of a specific plan, which is being considered as part of the Countywide General Plan review program.

The main alternative that is currently being studied in the draft Bethel Island Specific Plan would allow the construction of up to 4,000 units on the island and on adjacent Hotchkiss Tract. The new housing being considered by the draft plan could be constructed to resemble another Discovery Bay-type community, with inland lagoons and lakes caused by the breaching of the levees. Also under consideration are the construction of a 500 room hotel-conference center and other tourist-oriented retail uses. Major concerns have been raised, however, about the potential for liquefaction during an earthquake, subsidence, recurrent flooding problems, and the impact of these natural constraints on future development in the area.

Ranchette development of agricultural lands throughout Contra Costa County is a recurrent issue. During the early 1980's, subdivision of grazing lands for ranchettes in the Deer Valley area, west of Oakley rekindled a debate over the County's ranchette policy. Some of the demand for ranchette style houses situated on large lots come from residents who own horses and wish to stable them near their homes. The horse population in the County and State has been dramatically increasing in recent years. Between 1959 and 1975, the number of horses in California grew by over 1000%. Ranchette homes are preferred by residents who are generally supported by urban livelihoods but who wish the rural lifestyle. Ranchettes are also occupied by retired farmers or ranchers and their relatives who do not want to leave the area but who no longer want to work the land.

Other Bay Area counties have recognized that a certain amount of demand does exist for ranchette development and have sought to apply appropriate regulations to guide their location. Alameda County determined several years ago that small parcels often resulted in contamination of the wells. In addition, the Sheriff's Department has difficulty in providing adequate police services to small parcel neighborhoods. Currently, Alameda County allows five acre parcels only in areas already improved with sewers.

The policy of the Contra Costa County Board of Supervisors toward rural residential development is embodied in a resolution adopted in 1983.¹ Ranchettes are "deemed to be inappropriate and are to be discouraged" in prime agricultural areas (prime soils plus useable water of a quality suitable for agricultural purposes) where active cultivation such as row crops or orchards is

¹Resolution No. 83/407, "In the Matter of Criteria for Rural Residential Development Policy", adopted by the Contra Costa County Board of Supervisors, March 15, 1983.

taking place, and in a city's Sphere of Influence where urbanization has been planned. The minimum parcel size for ranchette development on lands designated for agriculture/open space is five acres. In addition, criteria have been set ensuring an adequate on-site water supply with a hydrogeological evaluation to be prepared in areas of known or suspected water shortages.

The issue of ranchette development is being addressed at the time of this writing (mid-1988) in the countywide General Plan Review program. A revision of the 1983 Ranchette Policy has been recommended and the issue of raising minimum parcels sizes in agricultural areas is being debated.

2

VI. JOBS AND THE CHANGING ECONOMY OF THE COUNTY

Contra Costa County has always had a relatively complex economy. The County's economic base has historically consisted of a significant number of heavy industries, as well as serving as a bedroom community for the San Francisco-Oakland metropolitan employment center. The County economy also includes a significant amount of agricultural activity. Each of these three economic influences, with accompanying residential patterns, has historically dominated in some areas of the County while in other areas the influence has been mixed. The last four to five years have brought large changes to the County's economy. Intensive office development has occurred in the central cities of Walnut Creek, Concord and San Ramon, primarily as the result of a spatial redistribution of the strong market demand at work in the region and the state. At the same time, strong residential growth in the San Ramon Valley and in East County has steadily replaced grazing lands, orchards, and prime croplands with new subdivisions.

Early Economic Growth

As discussed briefly in a previous chapter, during the latter half of the 1800's Contra Costa County was a major agricultural center for the region and the west coast of the U.S. Because of the historical importance of water transportation during these years, shoreline communities along San Pablo Bay, the Carquinez Strait, and the Suisun Bay became bustling ports for loading and unloading of agricultural products transported from the inland areas. Port Costa along the Sacramento River was a major shipping point for wheat destined for national and world markets. Pittsburg, founded during the California Gold Rush period as the "New York of the Pacific", and Antioch were ports of call for the early sailors to the region. These two early incorporated river towns were supported by nearby hay harvesting and coal mining from the "Black Diamond" area south of town. After the coal ran out, fishing and canneries became mainstays for town residents. River boats stopped at Antioch during this period on their way to Stockton.

The catalyst for major industrial development during the early and mid-1900's was not only water access, however, but the coming of the railroads. The development of Richmond as an industrial city started in 1878 with the location of the old Central Pacific (now Southern Pacific) Railroad. That same year a rail connection was made for all the existing communities along the Carquinez Strait and Sacramento River from Crockett to Antioch. At the turn of the century Atchison, Topeka, and Santa Fe built its line along the waterfront paralleling the Southern Pacific rail before it turned inland through Franklin Canyon. By the early 1900's the first of several generations of paper mills was established in Antioch; Columbia Steel and other manufacturers had come to Pittsburg; Standard Oil and Union Oil had located plants in Richmond and Rodeo; and C & H Sugar had taken over a former sugar beet refinery in Crockett. In addition, chemical companies such as Stauffer, Peyton (later called General Chemical), and Great Western Electro Chemical (Dow) began operating in the County during this period.

Major industrialization of waterfront towns in the County continued throughout the first half of the twentieth century. After Shell Oil constructed the most modern oil refinery of its time in Martinez in 1914, Contra Costa County became well established as one of the most important petrochemical refining regions in the world. Martinez became transformed overnight from an important shipping center of agricultural good and livestock to a growing industrial port. In 1929, the Ford Motor Company located a plant in Richmond, but the real change in West County came during World War II when the U.S. Navy began to build Liberty ships at the Richmond harbor. By 1943, the shipyards and adjacent steel mills employed 100,000 people, many of them southern blacks who emigrated there during the war years. War related activities also provided a boom to Pittsburg after the government established Camp Stoneman south of the town, which served as a major port of embarkation for the war in the Pacific.

Growth of industrial jobs triggered by major employers moving into the County remained strong after World War II. A substantial new group of industries set up plants around the periphery of Antioch, taking advantage of the skilled labor force, access by rail and water, proximity to the growing Bay Area market, and especially the privileged tax status prevailing in the unincorporated areas outside the city limits. Fibreboard established a pulp mill in 1949, DuPont constructed a \$40 million chemical plant in 1955, and Pacific Gas & Electric built two large steam plants.

Growth During the 1960's and 1970's

Between 1960 and 1970 Contra Costa County experienced a rapid expansion in its existing employment base. The total number of jobs in the County increased from over 88,000 to almost 128,800, a 44% growth rate for the decade (see Table VI-1). During the same period, population growth fell below this rate, with a 36% increase. All categories of jobs, with the exception of agriculture, mining, and manufacturing, showed significant gains. The white collar jobs associated with services and the FIRE sector (finance, insurance, real estate) more than doubled, while jobs in retail and wholesale trade grew by 86%.

The period 1960-1970 was the watershed period for traditional blue collar manufacturing operations in the County. Prior to the 1960's, manufacturing was the dominant employment base, with almost 29,000 jobs or one-third of all positions. Over half of these jobs were provided by either oil and chemical refineries or steel mills in the older industrial towns along the shoreline. By 1970, the County's economy had evolved to resemble more of a service and trade oriented metropolitan area, with almost one job out of very four falling within these two categories. There was also a significant increase in the number of government jobs during this period.

TABLE VI-1
CONTRA COSTA COUNTY EMPLOYMENT¹
(1960 & 1970)

<u>Industry</u>	<u>1960</u>		<u>1970</u>	
	<u>Employment</u>	<u>% of Total</u>	<u>Employment</u>	<u>% of Total</u>
Agriculture	2,900	3	2,500	2
Mining	300	--	200	--
Construction	9,200	10	9,800	8
Manufacturing	28,200	32	26,600	21
Transportation, Communi- cations, Utilities	6,700	8	8,900	7
Wholesale & Retail Trade	15,400	17	28,700	22
Finance, Insurance, Real Estate	2,200	2	4,600	4
Services	8,700	10	20,600	16
Government	<u>14,900</u>	<u>17</u>	<u>25,800</u>	<u>20</u>
TOTAL	88,500	100%	127,700	100%

Source: California Department of Human Resources, Area Manpower Review, annual issues.

Note: ¹Employment is for July of each year. Does not include self-employed workers, employers, unpaid family workers, and domestic household workers.

Throughout the 1970's, the economy of the County continued to grow at a steady pace, registering 58,000 new jobs (a 41% increase) between 1972 and 1980 (see Table VI-2). (The period 1972-1980 has been used because the California Employment Development Department made changes in several job classifications in 1972, so earlier comparisons among industry categories cannot be made.) Of the jobs created during this period, almost three-quarters of the new positions (42,000) jobs were within the retail/wholesale trade, FIRE, and services industrial sectors. The largest individual gains in employment occurred in eating and drinking establishments (6,400 new jobs), business services (4,100 jobs), health services (4,200 jobs), state and local government, including public schools (7,300 jobs), and banking/finance (2,900 jobs). Fueled by residential construction in the later 1970's, the construction industry added 4,200 jobs.

TABLE VI-2
CONTRA COSTA COUNTY EMPLOYMENT¹
(1972 & 1980)

<u>Industry</u>	<u>1972</u>		<u>1980</u>	
	<u>Employment</u>	<u>% of Total</u>	<u>Employment</u>	<u>% of Total</u>
Agriculture ²	1,900	1	1,700	1
Mining	200	--	600	--
Construction	9,300	7	13,500	7
Manufacturing	25,000	18	27,100	14
Transportation, Communi- cations, Utilities	9,300	7	11,800	6
Wholesale & Retail Trade	33,100	23	52,800	26
Finance, Insurance, Real Estate	5,400	4	11,900	6
Services	24,300	17	40,000	20
Government	<u>32,400</u>	<u>23</u>	<u>39,700</u>	<u>20</u>
 TOTAL	 140,900	 100%	 199,000	 100%

Source: California Employment Development Department, Annual Planning Information, annual issues.

Notes: ¹Employment is annual averages for 1972 and 1980. Does not include self-employed workers, volunteers, farmers and unpaid family workers, private household workers, and persons involved in labor disputes. The data in this table is not directly comparable to the previous table since changes in industrial classifications were made in 1972.

The composition of Contra Costa's employment base continued to change during the 1970's, shifting away from traditional manufacturing towards more retail and service jobs (see Figure VI-1). Manufacturing employment in the County increased by 8% between 1972 and 1980, although its relative importance in the economy slipped from 18% of all jobs to 14%. Basic manufacturing activities which suffered extensive job layoffs included paper mills, which lost 1,000 jobs; food processing (600 jobs lost); and the manufacture of non-electrical machinery (600 jobs). A number of other heavy industries in the County, however, registered substantial gains. Employment in the printing and publishing industry (primarily the Leshner newspaper chain) rose from 1,300 workers to 2,100 workers, the area's chemical refineries posted growth of 400 workers, and the oil refineries added 300 jobs.

By far the largest increase in manufacturing employment between 1972 and 1980 was in the "high technology" industries. Several large firms in the County which produce computerized instruments (Systron-Donner, Varian) hired 1,800 new workers, and approximately 500 jobs were created by electronic component manufacturers. In addition, a significant number of jobs were added by truck transport and warehousing firms (700 jobs), communications workers (800 jobs) and utility providers (1,000 jobs).

Employment Growth During the 1980's

Since 1980, the employment base of Contra Costa County has grown by 62,900 jobs, as shown in Table VI-3 and Figure VI-1. Major increases have been registered in the professional "white collar" categories, largely as the result of the boom in office construction along the I-680 corridor. The FIRE category (financial, insurance, and real estate firms) more than doubled between December, 1980 and December, 1987, adding 13,500 jobs. Most of the growth in the FIRE category, as well as in the TCU (Transportation, Communications, Utilities) industrial classification, which added over 9,000 jobs, was associated with the relocations by several major corporations into the County (e.g. Bank of America and Pacific Bell). Business services grew by 5,800 positions and the "mining" category increased as a result of the relocation of the Chevronland exploration division to Concord.

The California Employment Development Department (EDD) estimates indicate that Contra Costa County jobs grew at a very fast rate (3.9%) during 1987, due primarily to office and related development, but that job growth will slow to more normal rates of 2% to 2.5% during 1988 and 1989. While over 10,000 new jobs were created in (or transferred into) the County between December, 1986 and December, 1987, approximately 6,800 jobs were expected to be added during 1988 and about 5,300 jobs in 1989.

FIGURE VI-1

Employment Growth by Sector Contra Costa County (1980-1989)

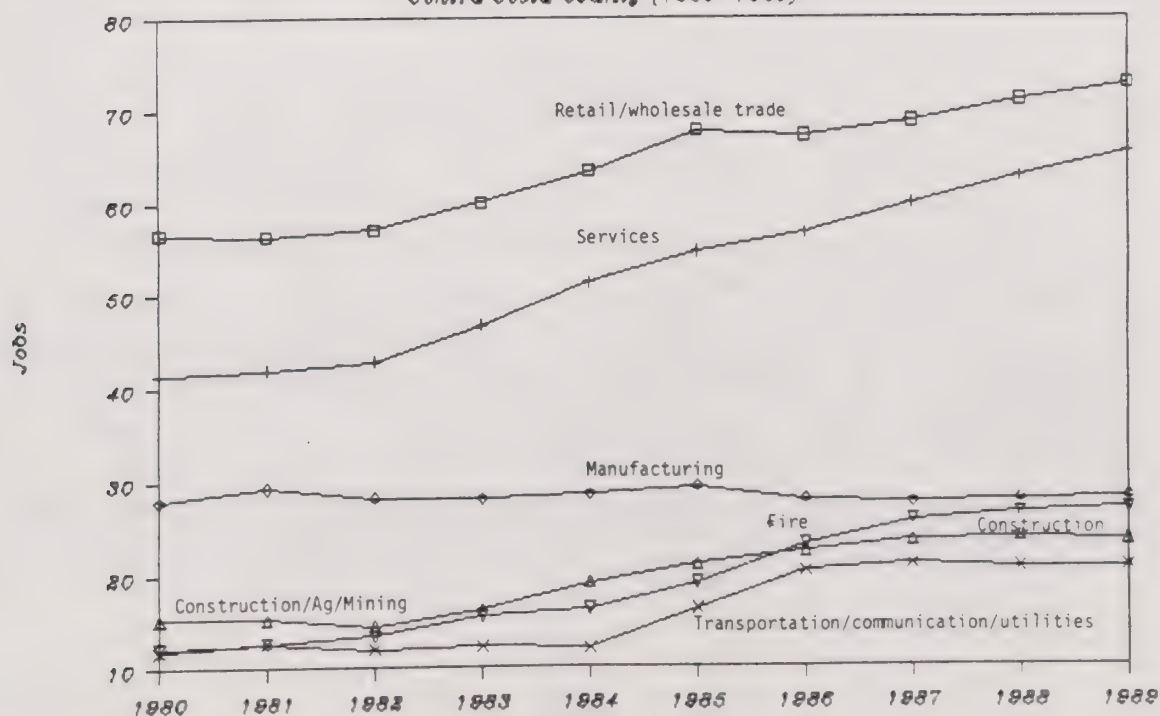


TABLE VI-3
CONTRA COSTA COUNTY EMPLOYMENT¹
(1980-1989)

<u>Industry</u>	<u>1980</u>	<u>1987</u>	<u>% Change 1980-1987</u>	<u>1989²</u>
Agriculture	1,400	800	-42.8%	700
Mining	600	2,700	350.0	3,000
Construction	13,300	20,000	50.4	19,900
Manufacturing	27,900	27,700	-0.7	28,300
-chemicals & petroleum	10,000	12,200	22.0	13,000
-electronics and instruments ³	4,300	3,400	-20.9	3,400
Transportation, Communications				
Utilities	11,900	21,000	76.5	20,700
-communications	3,000	11,200	273.3	n/a
Wholesale Trade	8,800	10,700	21.6	11,200
Retail Trade	47,800	58,200	21.8	61,700
-restaurants and bars	12,300	16,800	36.6	17,900
Finance, Insurance, Real Estate	12,200	25,700	110.7	27,000
Services	41,400	56,700	37.0	65,500
-business services	9,200	15,000	63.0	16,500
-health services	11,800	16,200	37.3	17,700
Government	<u>40,000</u>	<u>41,400</u>	<u>3.5</u>	<u>42,300</u>
TOTAL	205,300	268,200	30.6	280,300

Source: California Employment Development Department, Annual Planning Information, annual issues.

Notes: ¹ Does not include persons involved in labor-management trade disputes. Employment is for December of each year (not annual averages).

² Projections by EDD (March, 1987 benchmark).

³ Includes some electrical equipment manufacturing which is not considered "high technology".

Office and residential construction in the County during the 1980's has pushed employment in the construction industry up to 20,000 persons. New construction and demand has also helped to sustain a very high rate of growth in the number of eating and drinking establishments and in health services. Restaurants, bars, and other food service outlets added 4,500 jobs between the end of 1980 and 1987. Health services also grew significantly, increasing by 4,400 positions.

Surprisingly, County manufacturing continued to grow through the mid-1980's, with job losses in some older basic industries more than offset by gains in chemical and petroleum refining, printing and publishing activities and, to a lesser extent, the "high technology" sectors of electronic components and instruments. During the first half of the decade, chemical refineries in Contra Costa added some 700 jobs, the printing industry grew by 500 jobs. But it has been the County's oil refineries which showed the most impressive growth, approximately 2,200 jobs, between 1980 and 1985. A significant number of the jobs were added at one large refinery (Shell), which has been benefitting from the booming demand for unleaded gasoline.

Manufacturing jobs have declined significantly during the last two years, however, with 1,700 jobs lost between the end of 1985 and the end of 1987. Most of the job loss has been associated with cutbacks in some oil refineries (a loss of 500 jobs) and the continuing decline of heavy industries such as the manufacturing of lumber and paper products, primary and fabricated metals, and other durable goods. The State EDD office projects that jobs in durable manufacturing will continue to shrink by about 1% each year, but that a modest amount of job creation in the chemical, petroleum and printing industries will offset the losses and result in overall manufacturing employment growth of about 1% annually during 1988 and 1989.

In addition to serving as an important source of basic, well paying blue collar jobs for local residents, heavy manufacturers pay by far the largest amounts of property taxes to the County than any other employers. The top seven property tax payers in 1987-1988 were Chevron U.S.A. (\$23.1 million), followed by Pacific Gas and Electric (\$16.6 million), Pacific Bell (\$10.5 million), Shell Oil (\$6.5 million), Union Oil (\$5.0 million), Tosco Oil (\$4.4 million), and Dow Chemical (\$2.5 million). Other large industrial employers that a large amount in property taxes each year to the County include U.S. Steel, C & H Sugar, and Louisiana Pacific Corp.

Table VI-3 shows a drop of jobs in the category of "electronics and instruments" between 1980 and 1987, which was caused by the closing of one instruments firm in 1982. In the last two years, however, employment in the instrument and electrical/electronic manufacturing categories has remained relatively stable at about 3,400 workers and the projections are that "high tech" employment levels will stay flat during the coming years.

The EDD two year forecasts indicate that 12,100 jobs will be created in Contra Costa County between December, 1987 and December, 1989 (see Table VI-3). Two thirds of the new jobs will be in services and retail trade. The largest jump in workers (5,500 new full and part-time positions) will be in the broad services sector, which by the end of 1987 had displaced retail trade as the biggest industrial category in the County. Business services are expected to add 1,500 positions over the 1987-1989 period, with the most dramatic increases occurring with the temporary help agencies that supply office and clerical workers. Approximately 1,500 new jobs are also anticipated in the health services field.

New opportunities in restaurants and bars will account for 1,100 of the 3,500 jobs that are projected to be created by retail trade over the next two years, due in part to the increase in two wage earner families who eat out more often, as well as the growth of fast food workers.

The FIRE (finance, insurance, real estate) sector is expected to add 1,300 workers between the end of 1987 and 1989. Other significant job increases will be registered in government agencies, including schools (900 new positions); transportation and utilities (700 jobs); and construction (700 jobs).

Contra Costa's Largest Employers

The largest employer in Contra Costa County is Chevron USA, which employs approximately 10,500 workers. In descending order, the other biggest companies in the County include Pacific Bell (Telesis), the Contra Costa County government, Bank of America, the Mt. Diablo School District, and Pacific, Gas & Electric (see Table VI-4).

TABLE VI-4
CONTRA COSTA COUNTY'S
LARGEST EMPLOYERS

<u>Employer</u>	<u>Business Activity</u>	<u>Location</u>	<u># of Employees</u>
Chevron USA			10,500 total
Chevron USA	credit card processing	Concord	2,000
Chevron USA	accounting, other div.	San Ramon	6,400
Chevron USA	petroleum products	Richmond	2,100
Pacific Bell	communications	San Ramon	7,500
Contra Costa County	government	Martinez, etc.	5,990
Bank of America	banking services	Concord	4,725
Mt. Diablo School District	education	Concord	4,311
P G & E	electrical/gas service	Concord	2,045
Leshar Communications	newspaper chain	Walnut Creek	1,800
Village Resorts	resort management	Lafayette	1,500
Mt. Diablo Hospital	health care	Concord	1,400
U.S. Social Security Adm.	government	Richmond	1,400
San Ramon School Dist.	education	San Ramon	1,400
John Muir Hospital	health care	Walnut Creek	1,330
California & Hawaiian Sugar	refined sugar	Crockett	1,300
Systron-Donner Corp.	electronic instruments	Concord	1,250
U.S. Naval Weapon Station	military	Concord	1,250
Veteran's Hospital	health care	Martinez	1,230
San Ramon School District	education	Danville	1,175
Safeway Stores	food distributor	Richmond	1,100
Shell Oil Co.	petroleum products	Martinez	1,100
Duffel Financial & Constr.	real estate development	Lafayette	1,100
USS - Posco Industries	steel products	Pittsburg	1,070
CC Community College Dist.	education	Martinez	1,070

TABLE VI-4
(con.)

Tosco Corp.	petroleum products	Martinez	750
City of Richmond	government	Richmond	700
Brown & Caldwell	environmenatal engr.	Pleasant Hill	700
Western Temporary Services	temporary employment	Walnut Creek	600
AT&T Information Systems	communications	County-wide	564
Taylor-Made Office Systemrs	office products	Concord	550
Mason-McDuffie	residential real estate	Orinda	530
Bio-Rad Laboratories	manufacturing	Hercules	500
Dow Chemical	chemical products	Pittsburg	500
City of Concord	city government	Concord	500
Union Oil of Calif.	petroleum products	Rodeo	500
Unocal Refinery	petroleum products	Rodeo	500
McCaulou's	specialty dept. store	Lafayette	500
Ball, Ball & Brosamer	construction engineers	Alamo	500
Conco	construction	Concord	500
Varian Aerograph	chemical analysis	Walnut Creek	498
Bill's Drugs	retail drug stores	Lafayette	460
S&W Fine Foods	food mfg. & distr.	San Ramon	425
Doctor's Hospital of Pinole	health care	Pinole	430
Los Medanos Hospital	health care	Pittsburg	425
Zehntel, Inc.	electronic instruments	Walnut Creek	400
Louisiana-Pacific Corp.	pulp & board mill	Antioch	400
Louisiana-Pacific Corp.	fibreboard	Antioch	400
Seeno Construction	construction	Pittsburg	400
United Grocers	food distributor	Richmond	300

Source: Employment figures collected by Contra Costa Council; Urban Land Economics; Contra Costa County Community Development Dept.

Recent Growth in the Service and Trade Sectors

Data collected by the Federal government as part of the economic censuses of 1977 and 1982 indicate that the service and trade sectors in Contra Costa County performed better than other industries during the late 1970's and early 1980's. (Results of the 1987 economic census have not yet become available for comparison.) During the five year period 1977 through 1982, wholesale trade in the County grew from approximately \$2.6 million in sales to over \$4.5 billion, a 74% increase (see Table VI-5). The gross receipts collected by the service industry have more than doubled since the later 1970's, while retail trade has gained 56% in sales, slightly less than consumer buying increased, as expressed in the consumer price index (CPI) for the period.

The performance of the wholesale trade sector between 1977 and 1982 was affected most directly by an 86% rise in sales of grocery products, which amount to over \$1 billion annually. Durable goods which showed large increases in sales included electrical goods such as TV's and appliances (up 220%), and commercial/industrial machinery and equipment (up 211%). The product sales which performed poorly during the period included autos, auto parts, and supplies (only a 1% increase in wholesaling), petroleum products (a 33% increase, only half the rate of the CPI), and chemicals (a 46% rise in wholesales).

TABLE VI-5
ECONOMIC PERFORMANCE OF SELECTED INDUSTRIES
IN CONTRA COSTA COUNTY
(1977 and 1982)

	<u>1977</u>	<u>1982</u>	<u>1977-1982</u> <u>% Change</u>
Retail Trade (Sales in \$1,000)	2,248,911	3,511,644	56.1%
Wholesale Trade (Sales in \$1,000)	2,612,872	4,539,875	73.8
Services ¹ (Receipts in \$1,000)	335,473	729,698	117.5
<hr/>			
San Francisco Region Consumer Price Index	180.8	300.0	66.4

Source: U.S. Department of Commerce, 1977 and 1982 Censuses of Retail Trade, Wholesale Trade, and Service Industries, various tables.

Note: ¹Services exclude health, education, social, and accounting services. These services registered approximately \$440 million in receipts for 1982 (no figures available for 1977).

The service sector in Contra Costa is not as important economically, in terms of gross receipts or sales, as the trade industry, but the growth in services has been the most explosive. Receipts collected by service providers totalled almost \$1.2 billion in 1982, including health, educational services, accountant, and social services. Although 1977 data for receipts are not available for these latter four service categories, the phenomenal increase in health service costs (excluding hospitals) over the last decade would probably have pushed the overall service sector performance even higher if it had been added into the total. The largest jump in the County came in receipts collected for business services such as data processing, temporary employment agencies, and management services. Business services increased from a \$100 million activity in 1977 to almost \$300 million five years later, due primarily to office construction in the County. In Walnut Creek business service receipts more than tripled, while in the San Francisco region overall receipts have doubled.

Legal and engineering services, including the work of architects and surveyors, also saw a tremendous doubling in County receipts for the period. Traditional repair service activities, including the work of auto mechanics, garages, auto rental agencies and appliance repair shops, showed less spectacular growth in the County (an 85% increase), as did personal service providers such as barbers, laundries, and carpet cleaners (an 89% increase in receipts).

Retail sales in the County grew from \$2.2 billion in 1977 to \$3.5 billion in 1982, an increase which fell below the 66% jump in the consumer price index for the San Francisco-Oakland region. The combination of double digit inflation during the later 1970's and the national recession of 1981 and 1982 undoubtedly had a dampening effect on buying habits, even in a relatively affluent area such as Contra Costa County. Still, Contra Costa's retail sales increased slightly more over the five year period than the State and regional average.

Although countywide sales showed little relative increase compared to consumer buying power, individual retail shopping centers showed impressive growth, largely at the expense of the central business districts in the County (see Table VI-6). Hilltop Mall in Richmond experienced retail sales approximately 150% higher than five years previous. The Willows retail area (including new stores near Diablo Valley College in Pleasant Hill) had a sales increase of over 70%, as did the County East Mall in Antioch. The largest single shopping mall in the County, Sun Valley, had sales that topped \$200 million in 1982, a large volume that increased by a modest one third over the five year period.

The Walnut Creek Central Business District (CBD) includes the largest concentration of retail activity in the County, as measured by the Federal census, although growth in the city registered only 23%. Other downtown shopping districts in Concord and Lafayette showed equally unimpressive growth in sales. In West County, the competition of Hilltop Mall decimated sales in downtown Richmond, and El Cerrito Plaza gained less than 30% in sales. East County retail sales in Pittsburg and Brentwood were relatively stable compared to the CPI, as new residential construction offset the loss of customer dollars to the region's largest shopping malls.

More recent data on taxable retail sales collected by the State Bureau of Equalization indicates that the County's retail base is growing even more quickly than in the late 1970's. Third quarter retail sales (of taxable items only) registered \$817.7 million in 1983, and rose to over \$1.0 billion during the third quarter of 1986 (see Table VI-7). This strong increase of 24% over the three year period was significantly higher than the growth in the Consumer Price Index (13.5%).

TABLE VI-6
RETAIL SALES IN CONTRA COSTA COUNTY
BY AREA
(1977 and 1982)

	<u>Sales (\$1,000)</u>		<u>1977-1982</u>
	<u>1977</u>	<u>1982</u>	<u>% Change</u>
County East Mall	76,648	131,460	71.5%
Antioch (incl. mall)	159,112	219,563	40.0
Pittsburg	62,621	105,021	67.7
Brentwood	15,784	23,997	52.0
Martinez	36,559	65,824	80.0
Concord CBD ¹	74,722	98,895	32.4
Willow Shopping Ctr. ²	139,858	242,347	73.3
Sunvalley Mall	152,685	204,771	34.1
Contra Costa Ctr.	60,172	93,697	55.7
Walnut Creek CBD	299,927	368,645	22.9
Lafayette	87,904	97,729	11.2
Hilltop Mall	62,747	(152,113) ³	142.4
Richmond CBD	8,813	6,421	-25.1
El Cerrito Plaza	50,424	64,866	28.6
Unincorporated Areas	324,002	521,521	61.0
COUNTY	2,248,911	3,511,644	56.1
S.F. REGION	11,987,561	18,240,335	52.2
CALIFORNIA	80,660,836	123,945,914	53.7
<hr/>			
S.F. REGION	180.8	300.3	66.4
CONSUMER PRICE INDEX			

Source: U.S. Department of Commerce, 1977 and 1982 Census of Retail Trade, Tables 7 and 8 (Geographic Area Series) and Tables 1, 2 and 7 (Major Retail Centers)

Notes: ¹Sales in the Concord Central Business Center (CBD).

²Sales data for the Willow Shopping Center is not directly comparable between 1977 and 1982, since the latest figures includes sales from new commercial development in and around the College Square Shopping Center.

³Sales Data for Hilltop Mall in 1982 is available only for those establishments with a payroll (approximately 90-95% of all stores); consequently, the percent change figure is slightly underestimated.

TABLE VI-7

CONTRA COSTA COUNTY
TAXABLE RETAIL SALES
(Third Quarter, 1983 & 1986)

Receipts Collected on Taxable Items
(in thousands of dollars)

Type of Retail Activity	Third Qtr. 1983	Third Qtr. 1986	Per Capita Retail Sales (1986)
Apparel	\$ 36,200	\$ 52,200	\$ 72
General merchandise	143,500	182,600	250
Specialty stores	62,900	122,100	167
Food stores	87,100	96,600	132
Eating & drinking	85,500	100,800	138
Furniture & household appliances	44,600	57,500	79
Building materials	60,000	79,800	109
Auto service & sales	147,600	215,900	296
Service stations	127,800	82,400	113
Sub-Total: all retail	817,700	1,013,700	1,389
Business & professional services	29,800	47,400	65
All other non-retail outlets	239,500	321,000	--
TOTAL	1,087,000	1,382,100	1,894
<hr/>			
Consumer Price Index	303.0	344.0	
<hr/>			

Source: California State Board of Equalization, Taxable Sales in California, published quarterly.

The biggest change in taxable sales came in the automotive categories. The sale, leasing, and service of new and used vehicles recovered from the slump in auto sales during the early 1980's to register impressive growth of 46% over the 1983 through 1986 period. While auto and truck sales boomed, receipts at service stations dropped by 55%, largely reflecting the dramatic change in the price of gasoline. The largest gain in retail sales was measured in the "specialty stores" category (jewelry, office supplies and other special items), which almost doubled in taxable receipts. Other big increases in Contra Costa County over the three year period were in apparel (clothing) sales (a 44% increase); building materials (a 33% increase); furniture and household items (a 29% increase); and general merchandise stores (a 27% increase).

Table VI-7 also traces the change in taxable business and personal service transactions. It should be noted that a large portion of this industry (e.g consulting services) is not subject to the sales tax, so the sub-total does not reflect the complete picture. Nevertheless, the category of business and other services that are taxed jumped 59%, from about \$30 million in mid-1983 to over \$47 million in 1986.

As of the third quarter of 1986, residents of Contra Costa County were spending, on a per capita basis, slightly more in each of the retail categories than residents statewide. Each Contra Costa resident spent an average of \$1,389 for retail goods during the third quarter of 1986 (or the equivalent of about \$5,560 each year), while California residents as a whole spent \$1,340 (\$5,360 annually). Table VI-7 indicates that Contra Costans spend on average approximately \$1,075 each year for auto sales and service; almost \$700 per capita in eating and drinking establishments (which is lower than the statewide average); and an incredible \$1,000 per capita on general merchandise, compared to the California average of only \$665.

County Labor Force Characteristics

During the decade of the 1960's, growth in the number of employed and unemployed workers living in Contra Costa County (the labor force) outstripped both the number of new jobs created in the County and the increase in population (see Table VI-8). Between 1960 and 1970 approximately 39,000 jobs were created in the County, while the growth in resident workers was almost double that number (74,000) and the population increased by 146,000 new residents.

The following decade again saw an increase in workers which far outweighed the growth in local jobs in the County. Coincidentally, the increase of 100,000 new workers in the County between 1970 and 1980 exactly matched population growth during that period. However, only 71,300 new job positions were created by local employers during the decade, resulting in many residents commuting out of the County. Likewise, between 1960 and 1970 job creation in Contra Costa amounted to only one-half of the demand for employment by new workers, adding to the already prevalent out commute pattern.

A major factor during the 1970's which contributed to the decade's 44% growth rate in the number of residents seeking jobs was the entrance of almost 60,000 women into the labor force. The phenomenon of much higher labor force participation rates for females was caused in part by the increasing need for many households to rely on two incomes to meet rising housing costs.

TABLE VI-8
INCREASES IN CONTRA COSTA COUNTY JOBS,
LABOR FORCE AND POPULATION
(1960-1988)

	<u>1960-1970</u>		<u>1970-1980</u>		<u>1980-1988</u>	
	<u>Increase</u>	<u>% Change</u>	<u>Increase</u>	<u>% Change</u>	<u>Increase</u>	<u>% Change</u>
Jobs	39,200	44%	71,300	56%	66,300	32.3%
Labor Force	74,062	49	100,155	44	62,184	19.2
Males	39,684	37	40,554	27	N/A	-
Females	34,378	79	59,601	77	N/A	-
Population	146,775	36	100,575	18	97,076	14.8

Source: U.S. Department of Commerce, 1960, 1970, and 1980 Censuses of Population, Tables P-1 or 14, and 176; California Employment Development Department job estimate for December, 1987 and labor force estimate for March, 1988; California Department of Finance population estimate for January, 1988.

During the most recent period of 1980-1988, the relationship between the growth of new jobs and new workers in Contra Costa County has become reversed. Due to the boom in commercial construction in Central County, the County's employment base has expanded by over 66,000, while 62,200 new workers have entered the labor force. During the same period, over 97,000 new residents have moved into Contra Costa. The rate of job growth over the eight year period has been very high, about 33%, which was almost double the rate of expansion in the number of labor force participants (a 19% increase). This reversed the trend of the two previous decades, when the number of new employment opportunities fell below the number of new residents who became a part of the labor force.

Corresponding with the upper middle class socio-economic characteristics of the County as a whole, a high percentage of the Contra Costa work force is employed in well-paying managerial and professional jobs. According to the 1980 U. S. Census, eight out of every ten workers who lived in Central County were employed in "white collar" jobs (professional, technical, sales, service or clerical positions), which represented 63% of all white collar workers in the entire County. Conversely, in East County over one-third of the labor force was employed in the "operatives" occupational category, which includes many "blue collar" jobs. The West County sub-area most closely resembles the occupational characteristics of the region as a whole; 28% of the workers in the five county San Francisco-Oakland area were employed in professional jobs in 1980, 36% in sales/clerical, 13% in service occupations, and 22% in the operative category.

Commuting Patterns in Contra Costa County

In 1988, the labor force of Contra Costa County is approximately 386,400 workers, matched by approximately 275,000 jobs offered by local employers. Over one half of the positions are located in Central County, which corresponds with the 60% of the labor force which resides in that sub-area of the County. While East Contra Costa is the fastest growing residential area, the number of jobs that have been created there have lagged well behind housing construction.

This imbalance has existed for some time, as reflected in the commuting data compiled by the 1980 U.S. Census. Based upon the responses from the census, West County residents were most likely to commute out of the County to their jobs (50% of the workers), compared to less than 20% of the East County residents who commuted out in 1980. The high percentage of West County residents who work outside the County may be partially explained by the close proximity of Alameda County employment centers such as Berkeley and Oakland.

The generalized work locations and commute patterns of Contra Costa County residents in 1980 is presented in Figures VI-2 and VI-3. Figure VI-2 illustrates the predominant commuting routes for all workers who live in the County, and commute to jobs either inside or outside Contra Costa. The graphic indicates that in 1980 almost 25,000 residents commuted from West County south across the Contra Costa-Alameda County line to jobs elsewhere in the region, while a slightly larger number of residents (26,500) commuted to local jobs in the West County area. A relatively small number of West County commuters (1,010) travelled to jobs in Marin County.

As in the case of West County, a similarly high portion (49%) of the local workforce in the Lamorinda-Walnut Creek area of Central County commuted to jobs outside Contra Costa in 1980, with 42% of these workers employed in San Francisco or in the Berkeley-Oakland area. In the Concord-Martinez area, only one third of the employed residents commute to jobs outside the County, with 25% of the total travelling to San Francisco and Oakland. These figures may be compared to statewide totals. In 1980, 87% of the labor force in California worked in the same county as their residence, while in Contra Costa the portion was only 59%.


 NORTH
 SCALE: 1" = 16,000'



Figure VI-2 shows that over 47,000 Central County residents commuted through the Caldecott Tunnel to jobs further west in the region at the time of the last census, compared to 63,000 residents that commuted to local jobs within Central County. About 3,200 additional workers commuted from the north-central cities to the San Ramon Valley, while 5,300 workers commuted to East County, 1,700 residents crossed the Martinez-Benecia Bridge to jobs in Solano County, and 4,500 workers had jobs in West County.

In East County, out of a total of almost 53,000 commuters in 1980, roughly equal numbers of residents either worked at local jobs (20,100) or commuted to Central County (19,400). Over 8,100 people commuted through the Caldecott Tunnel to jobs in San Francisco or Oakland-Berkeley, and almost 1,000 residents travelled southward down the Byron Highway County to jobs in Alameda or other counties.

In the San Ramon Valley, only 5,600 residents commuted to local jobs at the time of the last census. An equal number of workers commuted north to employment along the I-680 corridor, 5,800 workers travelled through the Caldecott Tunnel, and the remainder went south down I-680 or west using Crow Canyon Road.

The second map, Figure VI-3, gives the flip side of the commuting equation. This map illustrates the number of workers commuting **into** Contra Costa from other counties. As might be expected, the number of in-commuters was much smaller in 1980 than the number of out-commuters, although this balance has changed significantly since the census because of the recent boom in commercial construction. The greatest amount of in-commuting occurs along the I-80 corridor in West County, with 16,500 commuters coming from the north across the Carquinez Bridge. However, out of the total of 16,500, only 4,400 workers are commuting to jobs in West County and the remainder are travelling through the County to jobs further south. From the south, 12,600 employees are commuting to jobs in West County using either I-80 or San Pablo Avenue. Interestingly, in 1980 over 4,500 residents of Marin or Sonoma Counties commuted across the San Rafael-Richmond Bridge though West County to jobs elsewhere.

Other gateways to Contra Costa County registered lesser amounts of in-commuters or through traffic. Approximately 8,300 commuters made the reverse commute through the Caldecott Tunnel (a number that has risen significantly since 1980), almost 6,700 workers travelled south across the Benecia-Martinez Bridge, and 3,200 came into the County from the south along I-680.

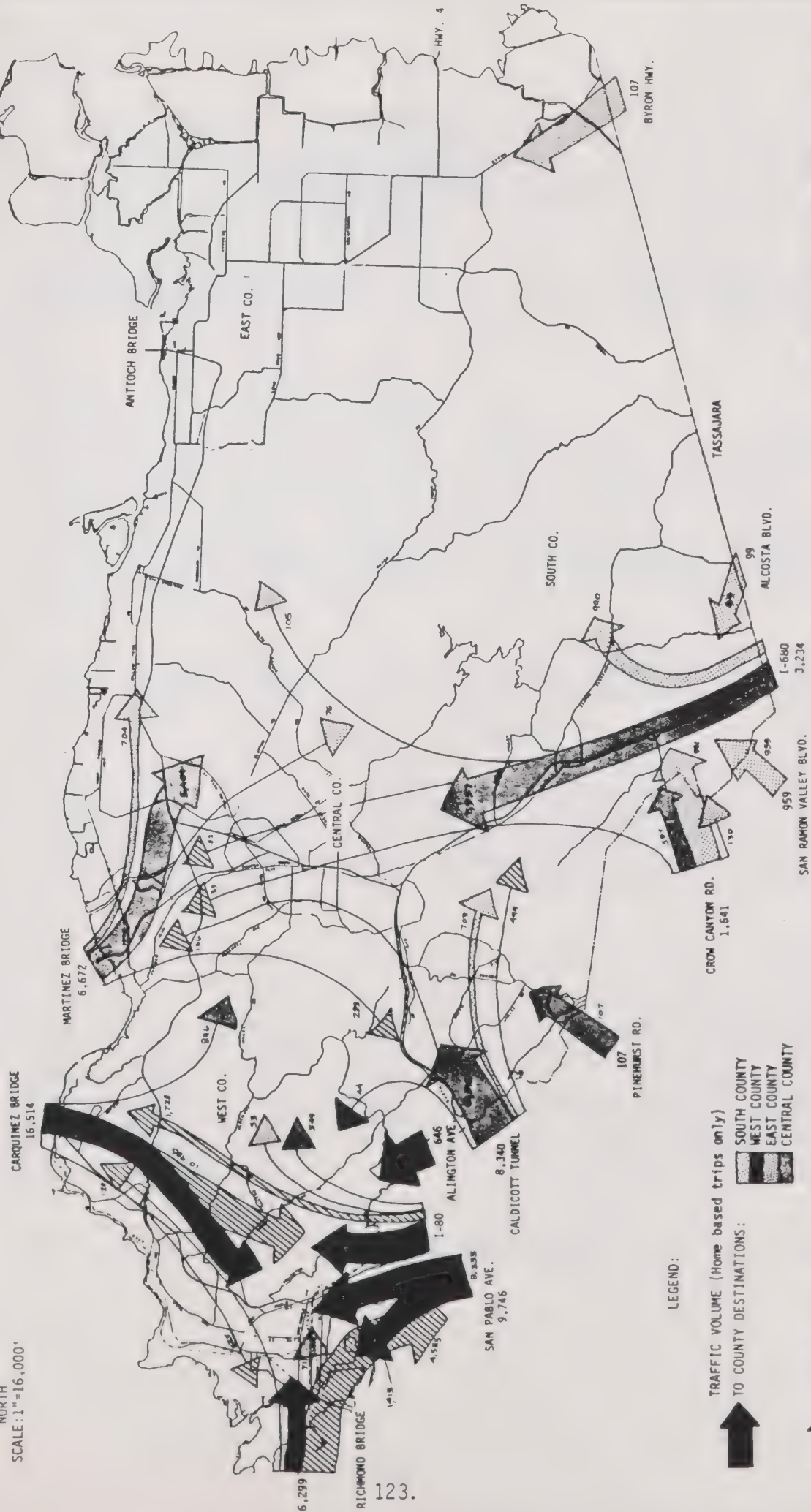
While there will be no detailed analysis of how commute patterns have changed during the 1980's until after the 1990 U.S. Census, it is possible to gauge some of the changes based upon recent traffic information. Overall, traffic congestion has increased substantially on key freeways throughout Contra Costa County, as indicated in Table VI-9. Between 1983 and 1986, average daily traffic volumes have grown by about 17%-18%, for an annual growth rate of an incredible 6%. This may be contrasted against a normal yearly increase in traffic of about 2% statewide.

FIGURE VI-3



NORTH

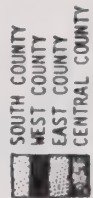
SCALE: 1"=16,000'



LEGEND:

TRAFFIC VOLUME (Home based trips only)

TO COUNTY DESTINATIONS:



THROUGH TRAFFIC

CONTRA COSTA COUNTY COMMUTE TRAFFIC: 1980

Source: 1980 Census

TABLE VI-9
CONTRA COSTA COUNTY
AVERAGE DAILY FREEWAY VOLUMES
(1970-1986)

<u>Corridor and Segment</u> (To/From)	<u>Average Daily Traffic (ADT)</u> (Annual Average in 000's)				<u>% Incr.</u> <u>'83-'86</u>
	<u>1970</u>	<u>1980</u>	<u>1983</u>	<u>1986</u>	
Route 24					
Caldecott Tunnel/Gateway (Orinda)	87.0	113.0	124.0	145.0	(16.9)
Jct. I-680 (Walnut Creek)	83.0	123.0	134.0	158.0	(17.9)
I-80					
Carquinez Bridge/Crockett	46.0	63.0	74.0	88.0	(18.9)
San Pablo Dam Rd./McBryde Ave. (Richmond)	90.0	116.0	131.0	155.0	(18.3)
I-580 (formerly Route 17)					
San Rafael Bridge (Richmond)	17.3	50.0	30.0	33.5	(11.7)
47th St./Alameda County Line (Rich.)	40.0	48.0	53.0	65.0	(22.6)
I-680					
Benicia Bridge/Marina Vista (Mtz.)	25.0	46.5	55.0	65.0	(18.2)
Jct. Rte. 4/Concord Ave. (Concord)	43.5	62.0	76.0	89.0	(17.1)
Jct. Rte. 242/Monument Blvd. (Conc.)	74.0	117.0	135.0	159.0	(17.8)
Geary Rd./N. Main St. (Walnut Creek)	91.0	132.0	153.0	180.0	(17.6)
Livorna Rd./Stone Valley Rd. (Dnvl.)	46.5	74.0	103.0	121.0	(17.5)
Crow Canyon Rd./Alcosta Blvd. (S.Rmn)	27.0	46.0	66.0	78.0	(18.2)
Route 242					
Concord Ave./Solano Way (Concord)	23.8	52.0	62.0	74.0	(19.4)
Route 4					
Cummings Skwy./McEwen Rd.	18.3	21.4	19.8	24.5	(23.7)
Pacheco Blvd./Jct. I-680 (Martinez)	20.3	33.5	41.5	49.0	(18.1)
Willow Pass summit	29.5	48.0	55.0	64.0	(16.4)
Bailey Rd./Railroad Ave. (Pittsburg)	25.0	40.0	48.5	57.0	(17.5)
A St./G St. (Antioch)	19.7	29.0	35.0	41.0	(17.1)
Oakley Rd./O'Hara Ave. (Oakley)	10.0	12.8	14.5	17.0	(17.2)
Lone Tree/Brentwood City Limits	9.5	12.9	12.2	14.4	(18.0)

Source: Caltrans, Traffic Volumes on California State Highways, annual reports.

The most serious congestion points in the County have developed along Route 4, during the morning commute over Willow Pass summit from East into Central County; at the I-680 and Route 24 "Y" junction in Walnut Creek; at the Caldecott Tunnel; along I-80 in West County; and, more recently, at the Martinez-Benicia Bridge. Based upon the most up to date traffic volumes in Table VI-9, the largest amount of traffic is measured near the I-680/Route 24 junction (180,000 vehicles pass by the Main Street interchange each day, a doubling over the 1970 level). Almost 150,000 cars and trucks now use the Caldecott Tunnel each day, with similar traffic volumes counted on I-80 near the San Pablo Dam Road interchange in Richmond.

Contra Costa County in the Changing Regional Economy

Major structural changes in the economy of the San Francisco Bay Area over the last decade have had a profound impact upon individual counties. Some of these trends, such as the general shift away from basic manufacturing industries toward more services and office-oriented, "information sharing" activities, are long term and international in scope. Other changes, such as the spatial redistribution of office functions and "high technology" industries within a region, have occurred more recently and are specific to the Bay Area and a few other major metropolitan centers in the U.S.

The decline in importance of traditional manufacturing in recent decades has been steady. Although employment in both durable and non-durable manufacturing sectors have actually increased nationwide every decade until recently, its relative portion of the total U.S. labor force has plummeted. In 1950 there were 15.2 million manufacturing workers, representing one-third of the total labor force. By 1975, there were over 19 million in employees in manufacturing sectors, but this portion of the work force had shrunk to less than one-quarter. In recent years manufacturing employment on the national level sustained the first negative growth rates since the Great Depression of the 1930's. The Bureau of Labor Statistics has estimated that 2.5 million workers were displaced by industrial plant closures between 1979 and 1984.

In California, employment in all manufacturing sectors grew at a steady rate during the 1970's, except for a brief downturn in 1975. Beginning in 1979, however, several basic industries in the state including auto manufacturing, steel and structural metal products, machinery, food processing, and lumber production began to suffer large job losses. Between 1979 and 1983, it is estimated that 158,000 manufacturing workers in California were laid off due to plant closures. Job losses in neighboring Alameda County were exceeded only by Los Angeles County. Alameda lost more than 16,000 industrial positions including a loss of over 10,000 jobs when International Harvester, Mack Western, and General Motors ceased production of autos and trucks.

Contra Costa County has been most affected by the virtual disappearance of the steel industry in the state. The County's last steel producer, U.S. Steel, closed some mills in Pittsburg and Antioch during the last several years, affecting over 500 jobs. Between 1980 and 1984, twenty-two plant closures have been recorded in the County, which resulted in the loss of 2,400 manufacturing jobs.¹

While traditional heavy industry has declined precipitously in recent years, light or "high technology" industries have continued to grow in the Bay Area, especially in the South Bay. Santa Clara County is generally credited as being the birthplace of the new technology, starting with research developed at Stanford University. This technology relies on the manufacturing of miniaturized electronic circuits on a thin wafer of silicon, or a "chip". Semiconductors and other integrated circuits are used as the "brains" of computers, telecommunications equipment, medical and scientific instruments, consumer goods, and military hardware.

Several large high technology firms located in Contra Costa County over a decade ago and now employ thousands of local workers. High technology jobs in the County are predominantly involved in the production of computerized instruments and test equipment. Major employers are Systron-Donner Corp. in Concord (1,800 jobs); Varian Instruments in Walnut Creek (500 jobs); Bio-Rad Laboratories in Hercules (425 jobs); Zehntel, Inc. in Walnut Creek (400 jobs); Nicolet Zeta Corporation in Martinez (180 jobs); and Siemens Medical Laboratories (175 jobs). One of the most successful recent start-up firms in the County is Gigatronics in Pleasant Hill, a spin off from Systron-Donner. The firm was named as one of the fastest growing companies in 1986, having secured lucrative military contracts to supply microwave signal generators (a testing instrument) to the Navy.

High technology manufacturing employment in Contra Costa County is currently estimated at approximately 3,300 workers, or 11% of all manufacturing jobs. Several hundred new manufacturing and research jobs were added in the County when Beckman Instruments, a firm which designs and produces computerized instrumentation under military contract, moved from Berkeley to the Bishop Ranch Business Park in San Ramon during the early 1980's.

High technology firms were once relegated to light industrial areas, but are now as apt to settle in office buildings. The distinction between campus-style industrial parks and low rise office parks is becoming increasingly blurred, hence the description "business park" is now more frequently applied to large planned developments which encourage a variety of office, research and development, and light industrial tenants. Although it may be too early to predict what kind of major tenants the larger business parks in Contra Costa and nearby Alameda County will eventually attract, it appears that the San Ramon and Pleasanton portion of the I-680 corridor may remain more oriented to office activities, while Livermore and southern Alameda County may become more attractive for traditional warehousing, light manufacturing uses, as well as research and development associated with the high technology industries of the Silicon Valley. There are key sites, however, in other areas of Contra Costa County which may be attractive for large

¹Shapira, Philip, "The Crumbling of Smokestack California", Working Paper No. 437, Institute of Urban and Regional Development, University of California, November, 1984.

for large scale high technology industries in the future, notably on vacant lands in or near Richmond (Chevron's Hilltop industrial/office park); in Hercules (the developing North Shore industrial park, where Bio-Rad moved from Richmond); in North Concord; and in the Pittsburg-Antioch area, where thousands of acres have been set aside for industrial/commercial development.

Recent Office Development

While the County has not attracted a great amount of new high tech manufacturing, there has been a tremendous boom in office construction. The new office buildings in Central County are being fueled by the seemingly insatiable demand for quality office space in the San Francisco Bay region, caused in turn by shifts in the national economy toward jobs involving finance, legal and business services, management, clerical functions, and information sharing. Most of these jobs are considered professional, managerial, and clerical "white collar" positions. Employment in the office-related sectors has increased substantially over the last decades, from approximately 30% of the national labor force in 1950 to over 45% in 1980.

Accompanied by the rapid expansion of office jobs has been the growth of key metropolitan areas across the U.S. which function as major office centers. Much of the new office construction in cities such as New York, Los Angeles, San Francisco, Houston, Chicago, Boston and Atlanta has occurred during the 1970's and 1980's. In the Bay Area, the growth in high rise office construction in San Francisco has accelerated from 10.3 million square feet built during the 1960's, to approximately 40 million square feet constructed during the 1980's.

San Francisco continues to be the center of office activities in the nine county Bay region, with an inventory of approximately 70 million square feet of office space, or about one-half of the region's total. During the 1970's, however, for the first time more office space was added outside of the city in the other eight counties than in San Francisco. Land prices and rents which are among the highest in the nation, coupled with increasing commute costs, have had the effect of creating new office centers outside San Francisco in Oakland, San Jose, Walnut Creek/ Concord, San Ramon, Pleasanton, and other cities.

San Francisco and, to a lesser extent, Oakland serve as the leading headquarters location for the largest Bay Area firms. Most of these large companies are involved in "export-oriented" office functions which contribute to the West Coast's leading role for real estate, shipping, specialized money markets, and legal and other business services. Large corporate headquarters in recent years have begun to "spin off" certain office functions to suburban locations to take advantage of lower land costs and rents, better transportation conditions, a skilled local labor forces, and available housing. Because of recent technological advances, it is now attractive for major firms to spin off "back room" clerical and data processing functions to suburban locations, while retaining a high prestige San Francisco office for the executive and administrative functions of the company. Examples of this relocation of office employees during the early and mid-1980's included the Bank of America's construction of a new bank card data processing center in Concord, the decision by Chevron and Pacific Bell to transfer 11,000 employees to the Bishop Ranch Business Park in San Ramon, and A.T. & T.'s transfer of 2,500 employees out of San Francisco to the Hacienda Business Park in Pleasanton.

A 1985 study estimated that San Francisco had lost 26,000 jobs since the late 1970's due to corporate decisions to relocate office workers out of the city. Of the 25 largest moves, 13 of the companies chose to transfer employees to Contra Costa County. In addition to the well-publicized relocation decisions by Pacific Bell, Chevron, and Bank of America, at least a dozen other major firms have transferred entire office divisions or functions into Central County, involving hundreds of workers in each instance. These firms include major insurance companies (Continental, Aetna, Equitable Life, and Great American West); banks (Wells Fargo, Crocker, and Central Bank); a mortgage company (Transamerica); engineering consulting firms (Woodward/Clyde and Impell); telecommunications operations (CP National and MCI); and various offices of major energy companies or manufacturers (Union Carbide, IBM, Potlatch Corporation, and Liquid Air).¹

Companies leaving San Francisco for Contra Costa County and other suburban locations during the first half of the 1980's cited several reasons for the move. Many firms had employees that already lived in the East Bay and wished to reduce commute time and costs. Office rents which until the mid-1980's had been significantly cheaper in the suburbs (\$15 to \$30 per square foot per year vs. \$30 to \$40 in San Francisco) lured many companies out the the city. Additionally, areas such as Central Contra Costa County offer a larger selection of low-rise office buildings which are suitable for data processing than San Francisco, as well as a large pool of skilled labor and a relatively affordable supply of nearby housing in East County.

Beginning in mid-1985, however, the combination of rising rents for new Class A office space along the I-680 corridor and depressed office rents in San Francisco due to an oversupply in the regional market have made the economic advantages of relocation less attractive than during the early 1980's. Vacancy rates of prime office buildings in downtown San Francisco averaged 15% or more in 1987 and rents had fallen to approximately \$25 to \$35 per square foot, similar to the rents from four years previous.

In Contra Costa County, the vacancy rate for prime office space stood at approximately 25% in 1988, with average rents of about \$15 to \$20 per square foot along the I-680 corridor. The furious leasing activity of new Contra Costa office buildings had cooled off by 1986-1987, as the migration of large corporations from San Francisco slowed because of the better deals that were being negotiated in the City. In addition, concerns about increasing traffic congestion, and voter approved slow growth initiatives in some Central Contra Costa cities made the County less attractive for relocation. At the time of this writing (mid-1988), most new office leases for buildings in Contra Costa are in the range of 3,000 to 5,000 square feet, the space needed for a moderate sized accountant or law firm. Very few leases are being signed for large spaces (over 30,000 square feet); instead, existing firms in the County are upgrading their space by negotiating a better deal in the tenant's market. Increasingly during the late 1980's, much of the office space coming on the market in Central Contra Costa will be occupied by firms that are fulfilling the demand for services generated by the existing nucleus of residents and businesses, rather than corporations that are transferring their clerical or data processing functions from San Francisco to the suburbs.

¹ Survey by the Pacific Properties Group, as reported in the San Francisco Chronicle, June 17, 1985; Oakland Tribune, July 24, 1985.

The construction of new offices in Contra Costa County actually began during the latter half of the 1970's, when over one million net square feet of office space was developed in Walnut Creek, primarily in the Shadelands Business Park, accompanied by over 300,000 square feet that went on line in the Concord-Pleasant Hill area. The only significant amount of large, regionally oriented office construction that occurred outside the Central County area during the 1970's was in downtown Richmond, where the U.S. Social Security Administration opened a one-half million square foot facility.

Since 1980, however, an explosion of new office construction has occurred along the I-680 corridor of Central Contra Costa and Alameda Counties, primarily centered in Walnut Creek, Concord, San Ramon and Pleasanton. It is estimated that between early 1981 and late 1986 over 20 million square feet of office space was added to the existing inventory, which totaled just 6.5 million square feet at the end of 1980 (see Table VI-10). In Central Contra Costa County, approximately 15.1 million square feet was built during 1981 through the end of 1986.

In the Livermore-Amador Valley, an incredible 20+ million square feet of offices and other related uses is planned or under construction in Pleasanton, primarily at the Hacienda Business Park. Although Phase I construction at the Hacienda Business Park is less than one half completed, Phase II of the project (an additional 4.3 million square feet) was approved in 1986 and is now being prepared for construction. When the entire business park is built out, it is expected to account for 11.6 million square feet or about 50% of the projected office space inventory in the Livermore-Amador Valley. Hacienda will be the largest contiguous office complex in the state when it is completed.

Of the 15 million square feet of new office space built between 1980 and 1986 in Central Contra Costa County, almost all of the space is located in one of six locations: downtown Walnut Creek, which includes the "Golden Triangle" of new developments near the BART station; the Shadelands Office Park in Walnut Creek off Ygnacio Valley Road; the unincorporated Pleasant Hill BART station area; the redevelopment area in downtown Concord; Bishop Ranch Business Park in San Ramon; and the area along Crow Canyon Road in San Ramon (see Figure VI-4).

In the downtown Core Area of Walnut Creek, a dozen or more major office buildings have been completed during the 1980's, totalling about 2.7 million square feet. The largest projects include three buildings in the "Golden Triangle": California Plaza (370,000 square feet); Tishman Office Center (320,000); and the Peri Executive Centre (185,000). Other large buildings include Growers Square (190,000), 1333 N. California (350,000 square feet) and Gateway Centre (115,000).

The boom of office construction in Walnut Creek during the mid-1980's provoked widespread debate among residents about the future of the city's suburban environment. During the Fall of 1984 a group of citizens circulated petitions to place two initiative ordinances on a citywide ballot, one of which restricts all new office building to six stories or less without voter approval. The ordinance was passed in a special city election held in March, 1985. The immediate effect of the approved ordinance was to curtail a city proposal to develop a parcel of land near the BART station as a high rise civic center, hotel, retail and office complex.

TABLE VI-10

OFFICE SPACE INVENTORY
IN CENTRAL CONTRA COSTA COUNTY
AND THE LIVERMORE-AMADOR VALLEY
BY CITY

Total Office Space (1)
(million square feet)

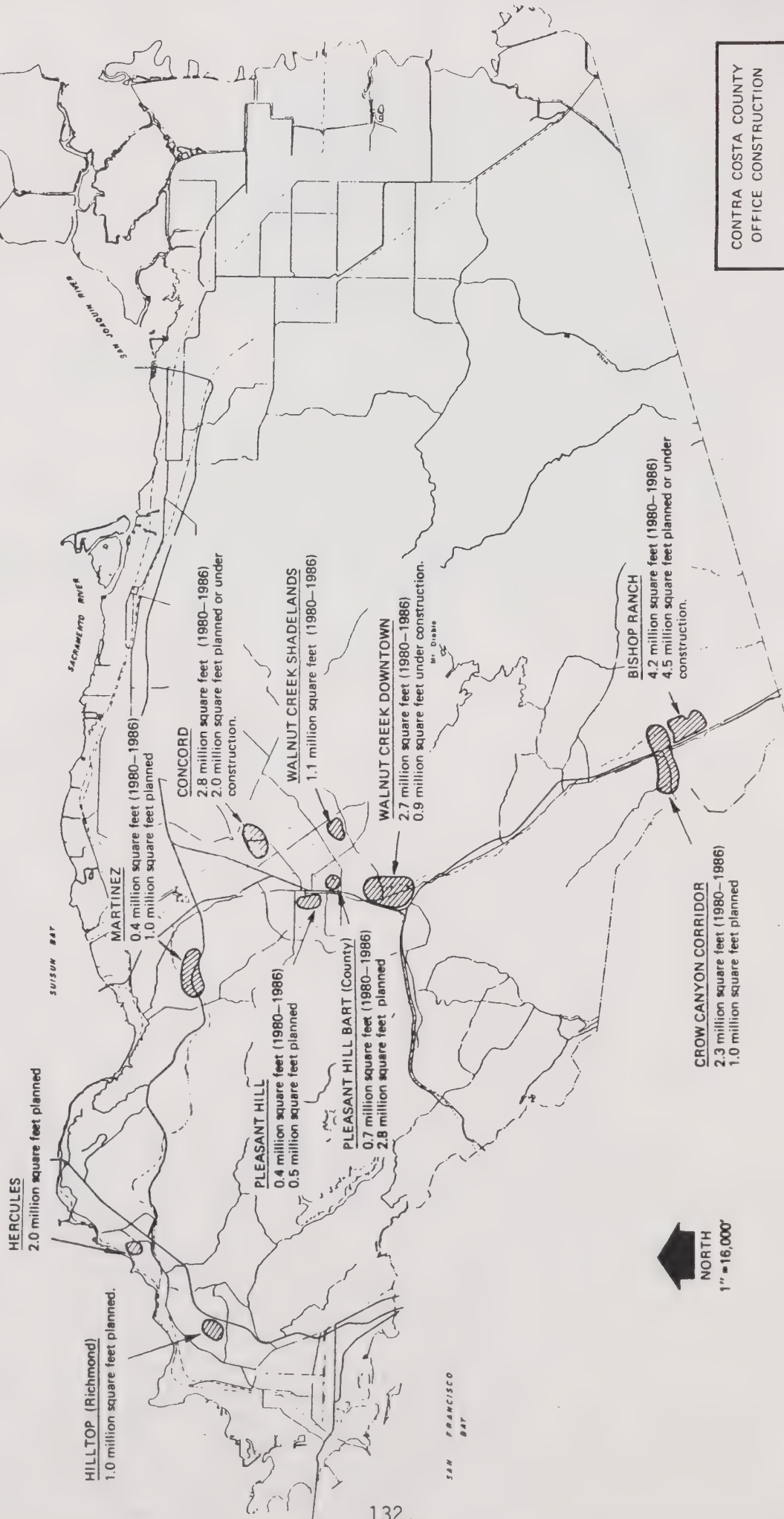
	1980	1981	1982	1983	1984	1985	1986	Projected (2)
	----	----	----	----	----	----	----	-----
Walnut Creek-								
Downtown (3)	1.4	1.6	2.1	2.2	3.0	4.0	4.1	5.0
Walnut Creek-								
Shadelands	1.9	2.1	2.2	2.5	2.9	2.9	3.0	3.0
Concord (4)	1.1	1.2	1.6	1.9	2.1	3.7	3.9	5.9
Pleasant Hill (5)	0.3	0.3	0.4	0.4	0.6	0.7	0.7	1.2
Pleasant Hill BART (6)	0.0	0.1	0.1	0.2	0.4	0.6	0.7	3.5
Martinez	0.1	0.1	0.1	0.1	0.3	0.4	0.5	1.5
Lamorinda (7)	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1
Danville-Alamo	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4
San Ramon (8)	0.3	0.4	0.6	0.8	1.8	2.4	2.6	3.6
Bishop Ranch (9)	0.0	0.1	0.3	0.5	2.4	4.0	4.2	8.7
Sub-Total:								
Central County	5.9	6.7	8.3	9.5	14.5	19.9	21.0	33.9
Pleasanton					1.9	3.3	4.4	21.5 (10)
Dublin	0.6	n/a	1.6	n/a	0.6	0.6	0.8	1.1
Livermore					0.5	0.5	0.6	0.8
Sub-total: Livermore-								
Amador Valley	0.6	--	1.6	--	3.0	4.4	5.8	23.4
TOTAL	6.5	--	9.9	--	17.5	24.3	26.8	57.3

Source: End of the year estimates by Contra Costa County Development Department from various sources, including city planning departments; McMasters & Westland and Coldwell Banker real estate brokers; and Sunset Development Company.

- Notes: (1) Includes existing and planned owner-user buildings: approximately 225,000 sq. ft. existing in downtown Walnut Creek; 1.1 million in Shadelands/Ygnacio Valley; 575,000 (Chevron) & 1.1 million (B of A) in Concord; and four corporate owners in Bishop Ranch.
- (2) Includes office buildings under construction in 1986 and "reasonably foreseeable" projects that are either pending or have been planned as of late 1986. Includes full buildout of Bishop Ranch and Hacienda Business Parks (both phases), which may not occur for ten to twenty years.

- (3) The projection for future office space construction in downtown Walnut Creek takes into account the effect of Measure H, the initiative passed by voters which restricts development until peak hour traffic is reduced.
- (4) Includes one project, the Reynolds & Brown Airport Center Executive Park (500,000 square feet), which is in the County.
- (5) The City of Pleasant Hill only. Takes into account the effects of Measure B, a growth limitation measure passed by voters in 1985.
- (6) The unincorporated area around the Pleasant Hill BART station.
- (7) Lafayette, Moraga, and Orinda.
- (8) Includes the incorporated area along the Crow Canyon Road corridor in the City of San Ramon.
- (9) The Bishop Ranch Business Park outside the City of San Ramon only. Includes some warehouse and R&D space.
- (10) Assumes full buildout of Phase I and II of Hacienda Business Park (11.6 million sq. ft., including some retail and light industrial space).

FIGURE VI-4



CONTRA COSTA COUNTY
OFFICE CONSTRUCTION
"HOT SPOTS"
JULY, 1987

▲ NORTH
1" = 16,000'

Another initiative ordinance, Measure H, was passed by Walnut Creek voters in November, 1985. The ordinance prohibits all new commercial construction over 10,000 square feet, and residential projects of over 30 units, until rush hour traffic through 75 key intersections is reduced to less than 85% of capacity (Level of Service D). Measure H has effectively shut down all major development in the city, although the initiative has been challenged in court and is currently on appeal.

The large Shadelands Business Park is also located in Walnut Creek, but is outside of the downtown area along Ygnacio Valley Road (see Figure VI-4). The park is composed of several buildings owned by major corporations (Del Monte, Safeway, Leshar Communications) constructed during the 1970's, as well as the Interland multi-tenant office buildings, the last of which have been completed during the early 1980's. By 1987 the Shadelands Business Park has been substantially built-out.

In Concord, a significant amount of office construction has recently been completed or is under construction, located in the City's downtown redevelopment area. The first major project in the redevelopment area was the expansion of Chevron's existing accounting and travel card processing center. Chevron transferred 500 employees from the Exploration, Land, and Production Division in San Francisco in the early 1980's. The second major catalyst in Concord office development came in late 1981 when Bank of America announced plans to construct a six block, 1.1 million square foot office park in the center of the redevelopment area. The project, consisting of three office buildings, an operations center and a 2,500 car garage, will employ 3,500 workers at its completion. The principal tenant is the Bank of America's System Engineering Division, which is responsible for the bank's credit card, computer-based telecommunications, information, operations and data systems. The division's 2,400 employees, originally based in San Francisco, began moving into a 13 story office building on the site in late 1985.

In addition to the Bank of America data processing center, several other large office and hotel projects totalling almost 2 million square feet have recently been completed in downtown Concord or are under construction. The largest developments include One Concord Centre (728,000 square feet of offices); the Gateway Towers (584,000 square feet); Concord Airport Plaza (355,000 square feet at buildout); and the Corporate Centre office buildings (317,000 square feet). Another large project, the Airport Center Executive Park (478,000 square feet planned at buildout), is located on unincorporated land across from the Airport Plaza development and was approved by the County Board of Supervisors in late 1985.

In 1985, the City of Concord adopted new urban design guidelines to implement the downtown redevelopment plan. The plan calls for a total buildout in the downtown of 4 million square feet of offices, two hotels, 2,000 dwelling units, and 200,000 square feet of restaurants and retail space. Another one million square feet of office space is proposed along Willow Pass Road.

The unincorporated area around the Pleasant Hill BART Station is regulated by a Specific Plan prepared by the County Community Development Department, which allows for the eventual buildout of 3 million square feet of commercial space. Additional development adjacent to the Specific Plan area will result in another one half million square feet of office space and several thousand housing units. Approximately 1 million square feet of offices has been constructed and another 2.5 million square feet and two hotels have been approved for construction. In addition, a development agreement signed between BART and the County will allow construction of a hotel and approximately one million square feet of commercial uses on BART-owned land adjacent to the station.

In the San Ramon Valley, the unincorporated Bishop Ranch Business Park has had phenomenal success in attracting major corporations to the 585 acre site. Both Chevron and Pacific Telephone have purchased large parcels within the park and have constructed office buildings to house employees transferred from corporate offices in San Francisco and elsewhere. Toyota Motor Sales has constructed a regional parts distribution center and Beckman Instruments has moved their research and development (R & D) operations from Berkeley. Office buildings constructed by the park's owner/developer, Sunset Development Company (Granada Sales), have attracted other corporate tenants such as Hewlett-Packard, Union Carbide, IBM, Rolm, Davy McKee Corporation and Pepsi Cola.

Completed construction at Bishop Ranch totals approximately 5 million square feet of office space, 200,000 square feet of R & D space, and 220,000 square feet of warehouse space. A 180,000 square foot specialty shopping center and 450 room hotel are currently under construction. Pacific Bell completed their huge 1.7 million square foot headquarters building in 1986 and Chevron has begun construction of the second phase of their facility, which will eventually total 2.5 million square feet of space. Approximately 1.4 million square feet of multi-tenant office buildings have been completed by Sunset Development and an additional 1.9 million square feet of offices have been approved for construction. At buildout, approximately 28,000 workers will be employed in the business park, which will include 8.7 million square feet of office space, plus a hotel, specialty shopping center, restaurant, and health club.

In addition to the development in Bishop Ranch, approximately 2.6 million square feet of office space has been constructed within the City of San Ramon since the 1970's. Major projects that have been completed or are planned within the incorporated area include Crow Canyon Office Park (250,000 square feet); the Creekside planned development (360,000 square feet at buildout); Sunset Business Park (270,000 square feet); Deerwood Office Park (475,000 square feet in several phases); Camino Canyon Corporate Plaza (160,000 square feet), The Commons Office Park (156,000 square feet); and Canyon Place (121,000 square feet). Most of these projects are phased, so that the total buildout will occur over several years, depending on the market demand.

In the City of Pleasant Hill northwest of the BART station, the downtown and the Pleasant Hill Common redevelopment areas have attracted a modest amount of new commercial construction. The Ellinwood Office Park, the largest project, consists of 300,000 square feet of offices, which was completed in 1986. The Terraces

office building (133,000 square feet) was completed in 1987. Further commercial and residential development in the redevelopment areas has been curtailed, however, due to the passage of Measure B in 1985. The voter initiative limits new commercial buildings to three stories, with some five story exceptions, and restricts any rezoning of residential neighborhoods to higher densities.

The only other significant office developments in Contra Costa County that have been constructed or are currently planned are in Martinez, Richmond, and Hercules.

The Muir Parkway area of Martinez along Route 4 has experienced approximately one half million square feet of office development during the 1980's. Several projects are under construction, with a total of 2 million square feet of commercial uses allowed under a specific plan adopted for the area. The largest of the current developments are the 243,000 square foot Summit Centre office park near the junction of I-680 and Route 4, now under construction; and Vista Oaks (227,000 square feet).

In Richmond, Chevron is developing the 950 acre Hilltop complex which will eventually support a workforce of approximately 7,000 employees and 10,000 residents. The master plan for the site has set aside a 40 acre office park and a 65 acre industrial, with an additional 100 acres for expansion. The Hilltop Office Park includes two completed buildings. Buildout over the next 25 years in the office park is projected to total one million square feet of offices, with the possibility that additional office space may be constructed in a nearby industrial park.

In Hercules, the 158 acre North Shore Business Park is being developed, with 2 million square feet of office and R & D uses planned. Bio-Rad Laboratories, a manufacturer of analytical instruments, has purchased 67 acres in the park and has constructed the first of 11 planned buildings. Adjacent to North Shore is a 100 acre parcel that has also been planned for office and research activities.

ABAG Employment Projections

The Association of Bay Area Governments (ABAG) publishes a 20 year forecast of population, household, and employment figures for all cities and counties in the San Francisco region. The latest forecasts, contained in Projections '87 (July, 1987), indicate that Contra Costa County will add 142,500 new jobs between 1985 and 2005, a 60% increase.

It should be noted that ABAG projections are "driven" by economic and demographic mathematical models, and constrained by examining local governments' land use plans. The projections do not take into account constraints to economic development such as the lack of infrastructure (roads, sewer capacity, water, etc.) or the inadequacy of the housing stock to absorb new worker households. The projections are reviewed by local agencies for comment and revision prior to their publication. The ABAG projections apply to each city's Sphere of Influence boundaries, a planning area which includes more land than is currently within the city limits.

Between 1985 and 1990, the County is expected to be the fastest growing area in the region, with over 50,000 new jobs created. One half of those new positions will be in the booming North Central portion of the County, between Walnut Creek and Martinez along the I-680 corridor (see Table VI-11). The 1985-1990 growth rate is expected to be an incredible 26% in this area, due to the boom in office construction and corporate job transfers. In the San Ramon Valley, the two cities and the County will have added 14,500 jobs by 1990, an increase of 67% over the 1985 employment base. During the same period, East and West County will gain about 5,000 jobs each.

TABLE VI-11

PROJECTED JOB GROWTH
IN CONTRA COSTA COUNTY
BY SUB-AREA

	<u>1985-1990</u>	<u>%</u> <u>Incr.</u>	<u>1990-1995</u>	<u>%</u> <u>Incr.</u>	<u>1995-2000</u>	<u>%</u> <u>Incr.</u>	<u>2000-2005</u>	<u>%</u> <u>Incr.</u>
West County	5,500	(9%)	8,900	(14%)	5,500	(8%)	3,500	(5%)
North Central	25,600	(20)	13,200	(9)	10,300	(6)	8,400	(5)
San Ramon Valley	14,500	(67)	8,600	(24)	6,100	(14)	7,400	(14)
East County	5,000	(19)	8,200	(27)	5,200	(13)	6,600	(15)
TOTAL	50,600	(21)	38,900	(14)	27,100	(8)	25,900	(7)

Source: ABAG, Projections '87; Contra Costa County Community Development Department

The ABAG job projections indicate that the cities along I-680 in North Central County and the San Ramon Valley will employ almost one-quarter of a million people in the next century, an increase of 100,000 workers over 1985 levels. By 1995, two-thirds of all jobs in the County will be located in the central cities.

Throughout the decade of the 1990's, employment growth is expected to remain strong in all four areas of the County, although growth in North Central Contra Costa will fall to less than one half its previous rate. The five year growth rate for the entire County will average about 14% during the first half of the decade and will drop to a growth rate in the range of 7% to 8% during the late 1990's and into the next century.

Jobs in the East County area will grow at double the Countywide rate, averaging 27% during the early 1990's, before dropping to a rate of 13% to 15% for the two five year periods between 1995 and 2005. The explosive job growth in North Central Contra Costa will level off to a more moderate rate of 6%-8% in the coming decade, but employment gains in the San Ramon Valley will continue at a much faster rate of 24% during 1990-1995 and 14% through the year 2005. New jobs in West County are expected to grow by 14% during the first half of the 1990's and about 8% during the second half of the decade.

Looking at the job growth within the individual Sphere of Influence areas of the cities, ABAG projects that the greatest increases will be in the Concord and San Ramon areas, which are expected to add some 25,000-30,000 jobs each by 2005 (see Table VI-12). Other large increases, about 13,000 new positions, will be measured in Walnut Creek and Richmond.

While employment growth associated with new office construction will be strongest in the central County cities of Concord, San Ramon, and Walnut Creek, individual cities in East County will create 25,000 new jobs over the next twenty years, as new residential subdivisions create the demand for goods and services (see Figure VI-5). The Antioch area is expected to gain over 11,000 new positions by the year 2005, with much of the job growth attributed to the development of city land for basic and "high tech" industries. Pittsburg will also sustain a significant amount of growth, adding to its employment base by 8,000 workers.

FIGURE VI-5

Job Projections for Selected Cities

Contra Costa County (1985-2005)

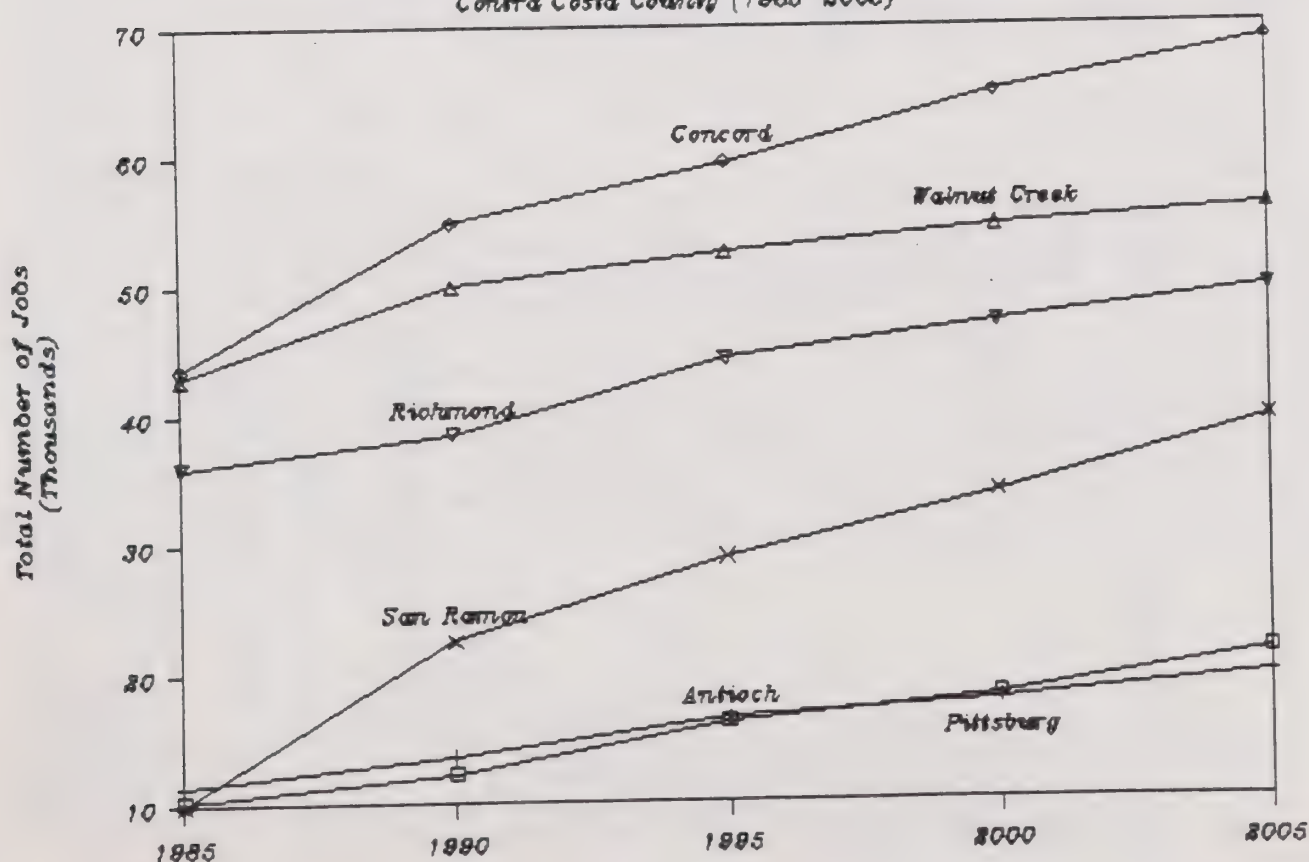


TABLE VI-12
ABAG EMPLOYMENT PROJECTIONS
(1000's)

<u>Subregional Area¹</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>% Change 1985-2005</u>
Antioch	10.3	12.3	16.2	18.2	21.5	108.7
Brentwood	1.4	1.8	2.1	2.5	3.3	135.7
Clayton	0.6	0.7	1.1	1.2	1.7	183.3
Concord	43.6	54.9	59.6	64.9	69.0	58.3
Danville	7.6	8.6	10.0	10.6	11.7	53.9
El Cerrito	6.4	6.9	7.4	7.5	7.5	17.2
Hercules	1.5	2.2	3.2	4.5	5.0	233.3
Lafayette	8.2	8.6	8.9	8.9	9.1	11.0
Martinez	13.6	15.9	17.7	18.5	20.1	47.8
Moraga	2.1	2.7	3.0	3.0	3.0	42.9
Orinda	3.3	3.3	3.1	3.5	3.6	9.1
Pinole	4.1	4.9	5.5	6.2	6.5	58.5
Pittsburg	11.5	13.6	16.5	17.8	19.7	71.3
Pleasant Hill	15.7	19.6	22.6	24.0	24.5	56.1
Richmond	36.0	38.6	44.3	47.1	49.6	37.8
San Pablo	7.5	8.2	8.7	8.7	8.9	18.7
San Ramon	10.0	22.6	28.9	33.9	39.6	296.0
Walnut Creek	43.0	50.0	52.6	54.6	56.0	30.2
Alamo-Blackhawk ²	3.6	4.1	5.1	5.4	5.9	63.9
Rodeo-Crockett ³	3.2	3.4	3.7	4.1	4.1	28.1
Rural East Contra Costa County ⁴	2.1	2.5	3.3	4.5	5.1	142.9
Remainder of County	1.6	1.7	2.9	3.9	4.0	150.0
TOTAL: Contra Costa County	236.9	287.5	326.4	353.5	379.4	60.1

Source: ABAG, Projections '87

- ¹Areas correspond to City's Sphere of Influence unless otherwise noted.
²Subregional area is the Sphere of Influence of the San Ramon Water District.
³Subregional area corresponds to the unincorporated communities within the EBMUD water service area.
⁴Subregional area includes the unincorporated communities of Oakley, Sandhill, Discovery Bay, and Bethel Island, as well as adjacent rural territory outside of Antioch's Sphere of Influence.

In the West County cities, Richmond businesses are projected to create 13,000 new jobs, a 38% increase, while the other employment centers of San Pablo and El Cerrito will grow at a more modest rate. Overall, West County will add 21,000 jobs during the next twenty years, trailing behind the growth forecast for the other two sub-areas of the County. West Contra Costa currently makes up 26% of the total labor force for the County, but by 2005 this proportion will have fallen to just 20%.

The dynamic job growth forecast for Contra Costa County during the next twenty years will be matched by other areas in the San Francisco Bay region. Contra Costa's increase of 143,000 jobs between 1985 and 2005 is dwarfed by the number of new jobs which are forecast for the Silicon Valley area in the South Bay. Santa Clara County is expected to add 333,000 workers, or almost one-third of the 1.1 million new jobs projected in the region.

In comparison, the East Bay (Alameda and Contra Costa Counties) is projected to add 360,000 new jobs by the year 2005. Alameda County will account for much more new employment (217,000 jobs) than Contra Costa, due to high technology and other industrial development in the South County cities of Fremont and Hayward (68,000 jobs) and from the large office-industrial parks in the Livermore-Amador Valley (an additional 69,000 jobs are expected in Pleasanton, Livermore, and Dublin).

Although San Francisco is forecast to increase its labor force by an incredible 118,000 workers during the next twenty years, the relative importance of the City as an employment center will decline from over 20% of the jobs in the region to 17% of all jobs in 2005. Santa Clara and Alameda Counties will retain their current standing in the nine county regional employment picture (30% and 20% of all jobs, respectively), while Contra Costa's share of the total will increase from 8.4% of all jobs in 1985 to 9% in 1990 and 9.7% in 2005.

Mitigating Traffic Congestion by Planning for a Better Jobs/Housing Balance

The relationships between the number of local jobs, the size of the labor force, the price of housing, and the wage or salary structure of the employment opportunities within a reasonable commute area all have a great impact on the commuting characteristics in Contra Costa and other counties. Commuting patterns are also determined by other population characteristics, such as age structure and labor participation rates. Although the County as a whole is a net exporter of workers to other portions of the San Francisco Bay region, there is a good deal of difference between the three sub-areas in terms of the balance of workers and jobs. Central Contra Costa provides the highest number of jobs relative to its employed population, while the East County sub-area has the lowest number of jobs per employed residents. This trend is expected to continue through the 1990's and into the next century, based upon demographic and employment projections.

Before examining the "jobs/housing balance" of individual cities or areas in the County, a clarification of this much misunderstood concept should be attempted. As an important first point, it should be understood that there is no magic formula or method that defines a jobs/housing "balance." The appropriate definition of a jobs/housing balance is as a qualitative, not quantitative, concept. In general, it can be said that a jobs/housing balance occurs if people live in housing that is affordable at the wages they earn, and travel minimum distances to their jobs and the services they use. Simply having an equal number of jobs and housing units in a city, sub-region, or county does not automatically assure that a balance will exist.

The statistics that are commonly used to measure the jobs/housing balance in a given area include the ratio of jobs to housing units, or the ratio of jobs to employed residents. However, other quantitative information should also be considered in assessing the balance, such as the relative rates of employment and residential growth, and existing work locations and commute patterns.

The primary goal of achieving a better jobs/housing balance should be the reduction of long distance commuting, and consequently, of peak hour traffic volumes. In evaluating proposed plans, or policies, the questions to be asked are "will the plan or policy reduce commuting into or out of the area, or will it increase commuting?" In answering the questions, the ratio of jobs to housing for the area may provide¹ some direction, but clearly it should not be the sole criteria for a decision.

With these definitions in mind, it is possible to study the jobs/housing ratios for individual areas of Contra Costa County, as well as other counties in the region, to gain some understanding of current and projected commute patterns. The statistic that is used here to measure the relationship between jobs and housing in a given area is the ratio of jobs to employed residents. Because the average number of workers per household ("employed residents") varies from one area to the next according to labor participation rates, this figure is a more accurate measure than the number of housing units or households.

Based upon the estimates published by the Association of Bay Area Governments in Projections '87, the ratio of jobs to employed residents has been calculated for each Sphere of Influence area in Contra Costa County, for each sub-region (or freeway corridor area), and for other counties in the San Francisco Bay Area (see Table VI-13). Using this methodology, the region as a whole can be said to have a jobs/housing ratio of almost one job (0.97) for each employed resident in 1985. This ratio is expected to increase over the next twenty years, as more jobs than housing is created in the region and more workers commute in from other regions such as the San Joaquin Valley and Monterey County. The region's jobs to employed resident ratio is projected to rise to .99 in 1990, to 1.01 in 1995, and 1.04 by 2005.

¹This discussion of the jobs/housing "balance" is based in part on communication from Thomas Cook, an Associate with the Bay Area Council (His findings will appear in "Planning for Jobs and Housing," a forthcoming paper).

Table VI-13

JOBS/EMPLOYED RESIDENTS

I-80 CORRIDOR							
LOCATION	1985	1990	1995	2000	2005		
ROUTE 4 CORRIDOR							
Antioch	0.44	0.42	0.42	0.40	0.44	0.64	0.90
Pittsburg	0.55	0.53	0.58	0.59	0.63	0.41	0.47
Brentwood	0.47	0.49	0.35	0.23	0.24	0.71	0.76
Rural East C.C.	0.27	0.24	0.25	0.26	0.27	0.32	0.38
Corridor ratio	0.46	0.44	0.44	0.42	0.44	0.28	0.41
						0.60	0.40
						0.66	0.68
						0.67	0.70
						0.64	0.90
						0.57	0.85
						0.68	0.71
						0.73	0.74
						0.77	0.93
						0.87	0.92
						0.97	1.08
						0.97	0.93
						0.93	0.99
						0.69	0.84
						0.89	0.93
						0.93	0.98
						0.81	0.75
						0.72	0.82
						1.44	1.44
						1.09	1.10
						1.01	1.01
						1.03	1.03
						1.51	1.55
						1.21	1.23
						0.97	0.99
						1.01	1.04
						0.93	0.98
						0.81	0.75
						0.72	0.82
						1.44	1.44
						1.09	1.10
						1.01	1.01
						1.03	1.03
						1.51	1.55
						1.21	1.23
						0.97	0.99
						1.01	1.04
						0.93	0.98
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						1.09	1.10
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						0.97	0.99
						1.01	1.04
						0.93	0.98
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						1.03	1.03
						1.51	1.55
						1.21	1.23

The accompanying table indicates that the current jobs/employed resident ratios for other counties in the region vary dramatically, from a high of 1.44 jobs for each local worker in San Francisco County to a low of only 0.68 jobs per worker in Contra Costa County. Obviously, Contra Costa has the "worst" jobs/housing ratio in the region because it has developed as a primarily bedroom community, with a relatively small employment base. Other counties in the Bay Area that currently have ratios of less than one job for each employed resident include Marin (0.72), Solano (0.81), and Alameda (0.93).

Looking at the projections of new jobs and employed residents anticipated over the next two decades, Contra Costa and most of the other counties are expected to add more jobs than residents during the 1990's. Housing growth (and consequent growth in the number of employed residents) in Solano County, however, is expected to be so strong that job creation will fall behind, and the jobs/housing ratio will drop significantly. On the other hand, job growth should far exceed housing development in Santa Clara County, so that by the year 2005 the "Silicon Valley" area will have over 1.2 jobs for each local worker, second only to San Francisco.

In Contra Costa County, there is only one area that currently has an average of more than one job for each employed resident: the Sphere of Influence area for Walnut Creek (1.15 jobs per worker). Walnut Creek has historically been the retail center for Central County, and recently has experienced a great deal of office construction. By 1990, the San Ramon Sphere area is also expected to measure a jobs/employed resident ratio of over 1.0, (1.27), a tremendous increase over its 1985 ratio of only 0.74. This change is due primarily to thousands of new jobs created in (or transferred into) the Bishop Ranch Business Park, as well commercial growth within the City of San Ramon.

The other communities in Contra Costa that have a jobs ratio nearest 1.0 are Richmond (0.91 in 1985, but dropping in the future with new residential construction); Pleasant Hill (0.84 in 1985); Concord (0.75); Martinez (0.72), and San Pablo (0.71). The Concord Sphere area has 0.75 jobs per employed resident now, but the ratio is forecast to jump to 0.88 in 1990, 0.96 in 2000, and over 1.0 by 2005, partially due to the significant amount of office construction underway during the mid and late 1980's.

It is notable that several Contra Costa communities have jobs/employed resident ratios below 0.5, e.g. rural East County, Clayton, Moraga, Orinda, Danville, El Cerrito, Pinole, and Hercules. Many of these cities were developed during the pre- or post-World War II era as bedroom suburbs for San Francisco and Oakland, and have never developed a local employment base. The most severe imbalances are along the Route 4 corridor (East County) and in the Lamorinda area (Route 24 corridor). Both of these areas have jobs/housing ratios below 0.5 and are forecast to remain primarily residential centers in the years to come. The imbalance is most disturbing in the booming East Contra Costa area, where housing construction is not being matched by new job creation. According to the ABAG projections, the jobs ratio can be expected to worsen from the current 0.46 jobs per employed resident to 0.42 by the year 2000 (or about 4 jobs for every 10 local workers). In contrast the I-680 corridor in North Central County has a jobs to employed resident ratio of 0.85, which will rise to 1.01 by the next century. Although Contra Costa County as a whole is expanding its employment base and maturing into a more diversified part of the regional economy, throughout the next twenty year period it will be the county with the lowest jobs/housing ratio.

Many analysts believe the most effective manner to promote a jobs/housing balance is at the sub-regional level. As a whole, Contra Costa is a very diverse county, and reducing in- and out-commuting at the county level will not by itself solve some of the most severe traffic problems. Much of the county's traffic results from commuting that goes on within one sub-area (such as Central County) or from one sub-area to another (such as the commute from an East County city to Central or South County). To complicate matters even further, Contra Costa has unique topographic constraints (i.e. Mt. Diablo and other coastal mountain ranges) that have dictated where the basic transportation corridors in the County have been developed and preclude the construction of any new corridors.

On the sub-regional level, Contra Costa County is composed of several collections of cities which are closely related. It is possible that individual jurisdictions within a sub-region can work together to reduce in- and out-commuting within the area. Coordinating the planning and land use approval efforts of several jurisdictions to achieve a better jobs/housing balance, however, is much easier said than done. In the fiscally conservative era since passage of Proposition 13, which severely limits the taxing ability of local governments, many cities are actively competing with each other for large commercial developments that will bring in needed sales tax revenues. This competitive strategy often means that jurisdictions will ignore or downplay the transportation impacts of big projects on adjoining neighbors or on the sub-regional jobs/housing balance.

There are, however, a number of policies that can be adopted and implemented in order to improve the jobs and housing picture. The most important concept is that **job growth needs to be accompanied at the same time by appropriate and adequate residential development, and vice versa.** More important than tabulating the ratio of jobs to housing is making sure that new employment growth is supported by an adequate amount of housing development. This housing needs to be built in synchronization with the new jobs, and should be of a type and price which is appropriate to those who will hold the new jobs.

The Association of Bay Area Governments suggests the following types of actions that local governments can combine into strategies to improve the jobs/housing balance and reduce the number and length of commute trips on adjacent freeways.¹ They include measures, currently in use in many jurisdictions in the region, to:

- o increase the supply of housing close to employment centers;
- o encourage production of affordable housing;
- o phase housing construction with job growth;
- o improve access to transit for home-to-work trips;
- o encourage commercial developers to locate near existing affordable housing; and
- o increase employment of local residents in the new jobs.

¹Association of Bay Area Governments, Jobs/Housing Balance for Traffic Mitigation, Interstate 680 and Interstate 580 Corridor Study, November, 1985.

Increasing the supply of housing close to job centers can be accomplished by a number of specific programs such as: rezoning to permit higher residential densities near employment concentrations and rezoning large, unused industrial, commercial and public lands for housing in the sub-region. This latter strategy has been implemented with some success in the "Golden Triangle" area of Santa Clara County between San Jose and Mountain View, where several cities and the County have participated in a joint planning effort that culminated in the rezoning of industrial lands for much needed housing.

Other incentives can be used to increase housing, such as tax exempt bond financing or density bonuses given to developers to encourage construction of multi-family housing near employment centers. Jurisdictions can also provide incentives for housing in mixed use developments, e.g. encouraging housing in commercial developments by reducing parking requirements.

In order to improve the jobs/housing balance by encouraging affordable housing to be built, cities and counties can offer density bonuses in exchange for maintaining a percentage of the units at affordable rents. Local governments can also grant a subdivision map for condominium conversion at a later date in exchange for the builder maintaining the units as rentals for a specified number of years (a strategy employed by the County and City of Walnut Creek). Alternatively, jurisdictions can issue AB 665 mortgage revenue bonds, individually or with other jurisdictions, to reduce the costs of construction financing for developers who build rental housing (also used extensively in Contra Costa County).

An important strategy to ensure a better jobs/housing balance in a sub-regional area is to phase commercial and residential growth in a complimentary plan. This is sometimes very difficult, as the market for the two land uses often dictates different approval and construction schedules. However, it is sometimes possible for a jurisdiction to require as a condition of approval the phasing of a project to correspond with the community's need for housing. Some cities in the Santa Clara Valley have sought to limit the number of employees per acre that are allowed in new commercial projects, in order to slow the creation of jobs until more housing is produced. Other jurisdictions have limited commercial development according to existing street or other service capacities. Some cities have also limited allowable uses to those with low peak hour traffic volumes as a way of phasing growth. The City of Concord has required housing construction in tandem with job growth in its redevelopment area and the City of Walnut Creek has given developers density bonuses in return for building housing elsewhere or within their commercial projects.

As a way to improve access to transit for home-to-work trips, and reduce auto commuting, individual cities in the Bay Area are attempting to involve local transit operators early in the design process for projects. With their participation, certain design features are incorporated into approved developments such as arterial or collector streets in residential subdivisions which are wide enough to accommodate buses and easy, safe, and direct pedestrian access from homes to transit stops. Planners also seek to ensure that new projects include

buildings oriented for easy access from transit stops to employment and shopping centers, and transit shelters at major employment centers or transfer points. One of the most important strategies to improve the link between work trips and transit (and carpooling) is to require large businesses to prepare and implement transportation systems management (TSM) programs. The City of Pleasanton has pioneered this strategy, and similar TSM programs are being adopted by Contra Costa County, and the Cities of Walnut Creek and Concord.

In an attempt to adopt measures which encourage developers to locate commercial and industrial projects where affordable housing is available and thereby improve the jobs/housing balance, various jurisdictions in the Bay Area have worked together with Chambers of Commerce and public and private development corporations. These types of measures involve the identification of sites available for office, commercial or industrial complexes that meet expansion needs of high tech and other light industries, particularly for production and assembly plants. Cities can also enact strong policy statements of commitment to provide capital improvements and public services needed to complement job growth, and/or restructure land use policies and approval procedures to minimize costly delays. One of the most important roles local governments can take is to provide information to private decision makers (including industrial developers and realtors) on sites, services, amenities, housing availability, as well as the jurisdiction's commitment to provide needed facilities and to minimize project approval time.

A final strategy that can be used by cities and counties to improve the jobs/housing balance and cut commuting is to adopt measures which help increase employment of local residents in jobs that are created locally. Some cities in the region require new employers, as a condition of approval, to advertise information locally about new job opportunities and skill requirements. During the EIR process Contra Costa County has also encouraged voluntary agreements from developers to give hiring preference to local residents as a mitigation for the jobs/housing imbalances resulting from the proposed project. Jurisdictions can also sponsor a job-screening and referral program for local residents and new employers and encourage coordination among developers, employers, and job training institutions to improve the coordination between emerging job opportunities and training programs. Private Industry Councils (PIC's) in Contra Costa County attempt to improve such coordination.

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